ST. BARTHOLOMEW'S HOSPITAL.

A Course of Clinical Lectures
ON
CHRONIC DISEASES OF BONES AND JOINTS,
CHIEFLY IN RELATION TO THE
TREATMENT OF DEFORMITIES.

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LECTURE VI.

CURVATURES OF THE SPINE.

GENTLEMEN,—Curvatures of the spine, the nature and treatment of which were not long ago almost completely ignored by surgical writers, are both frequent in occurrence and difficult of management; but the notice which the subject even at present receives is far from satisfactory. "The whole of its pathology and management lie in a very narrow compass."* The same author adds—"Lateral curvature most commonly commences at an early period of life, usually between the ages of twelve and eighteen, seldom before the one, and not very commonly after the other. It rarely, if ever, occurs but in females; at least I have never heard of nor seen a marked case of the kind in lads."† This expresses the general state of opinion on the subject in this country, and I have quoted the passages in order that we may inquire how far it corresponds with wider experience. Since the month of January, 1860, I have registered at the Orthopædic Hospital 31 cases of curvature of the spine—23 females, 8 males. The youngest was six months, the oldest fifty-four years. Of these, lateral curvature was by far the most frequent, posterior curvature being next on the list, and anterior curvature the last. Many authors, and especially those of France and Germany, designate these varieties by special names. Lateral curvature is called skoliosis; posterior curvature, cyphosis; anterior curvature, lordosis. This nomenclature does not advance our scientific knowledge of the subject, and I shall therefore in the following remarks dismiss these terms as summarily as possible.

First, then, of lateral curvature of the spine. It may be

FIG. 9.

congenital or non-congenital; it may proceed from intra-uterine pressure, from general debility, from the long continuance of one position, from inequality in the length of the limbs, from rachitis, rheumatism, &c. Regarding rachitis and its complications, the subject requires special consideration elsewhere. In growing girls, amongst whom this deformity is most common, especially in the upper ranks of life, the disease is one of general debility. Modern habits do not tend to muscular development; the body loses that elasticity which should appertain to youth; an undue amount of weight is thrown upon ligaments, which, as we have seen, yield without fail to continued pressure, however strongly they may resist the application of sudden force. We often meet with cases of lateral curvature combined with knock-knees and flat-foot, and can frequently trace the faulty position which induced the curvature to some physical defect, such as short sight. I have lately had several young persons under my care for this affection, in whom there was short sight. They were at different schools, accustomed to work many hours a day at writing and drawing. In order to bring the eyes to the proper focal distance, and near to the table, each patient instinctively threw out the left arm and elbow, resting it on the table, curving the spine with its concavity to the right, that the distance between the eyes and the paper might be lessened. A persistence in this habit gradually produced lateral curvature of the whole dorsal region of the spine to the left, the direction of the articulating facettes favouring such lateral displacement. Had the evil not been rectified early, there would have ensued a compensating curve in the lumbar region, combined with rotation of the lumbar vertebræ, and the deformity would have been irremediable.

In congenital cases, I have remarked that the convexity of the curve is generally to the left, and situated near to the shoulder—that is, in the upper dorsal region. The curvature may be single or double. In cases of double curvature I believe, as a rule, that the upper curve forms first; the lower one afterwards. But exception to this must be made in cases of inequality in the length of the limbs, when with lateral curvature there is also often combined extreme mobility of the spine. Whatever be the cause, whether congenital intra-uterine pressure, habits of position, or peculiar avocations, it is obvious that the spine is unequal to support the weight of the head and upper extremities; that it yields, as a sapling would, if encumbered with a weight beyond its strength. When the column once deviates from the straight line, it loses the greater part of its strength; and remember that the deformity, once established, increases year by year, until it becomes a serious impediment to the patient's comfort and health.

I am quite prepared to hear of numberless cases to prove that patients have "grown out" of the deformity; but I do not trust in the facts, for this reason, that rarely does the medical attendant of infancy and girlhood see the patient in mature age. Girls marry and go elsewhere, with other ties; and hence they are often removed from the observation of their early friends. But, not long ago, I saw a case of spinal curvature, supposed to have been arrested or "cured" at twenty, which had proceeded slowly until thirty-six, when it increased with great rapidity, causing a vast amount of disturbance to the general health; and another case, in which the rapid aggravation of the symptoms first became manifest at sixty-five. Such occurrences are no common, that we should look a little more closely than heretofore at the morbid anatomy of a deformed spine, and investigate the various pathological changes which take place.

In 1857 I examined a case of congenital lateral curvature in a still-born infant. It reminded me of the conclusions drawn from the examination of a case of congenital club-foot. All the parts were normal, but they seemed to have been bent up by pressure into their distorted form, and could not be replaced. There was no one structure the division of which would have liberated the spine. Now, in the more advanced stages, the alterations in form and relation are more conspicuous, as you may guess by looking at this vertebra. Its true interpretation

FIG. 10.

* Erichsen's Science and Art of Surgery, p. 758. 1861. † Op. cit.

I scarcely knew when I casually fell upon one in my collection.

These bones undergo remarkable changes in form: the bodies are compressed from above downwards on the side of the concavity, and acquire an oblique inclination towards the same aspect of the curve, lying no longer directly in front of the spinous process. Others assume a form called by Delpech "rhomboidal," a variety which occurs in the vertebræ of tran-

FIG 11.

sition—namely, those vertebræ belonging equally to two inverse curvatures, which they separate. The lamina, the pedicle, half of the spinous process, and the transverse process, are also reduced in size along the concavity, and the intervertebral foramina are small and irregular. But beside these changes, you will find an absolute rotation of the vertebræ, due to the influence exerted by the different directions of the articulating facettes in their normal state. This fact was noticed, and properly explained, by a Dutch physician named Roy. It is purely mechanical, and has nothing to do with muscular action, as imagined by Pravaz and Delpech. One of the most interesting instances of rotation of the vertebræ has been recorded by Mr. W. Adams in the "Medical and Chirurgical Transactions," vol. xix., sect. 2, 1854. The patient, an eminent member of our profession, presented such a remarkable swelling of the soft parts in the lumbar region from this cause—namely, rotation of the lumbar vertebræ, that it was mistaken by many for a lumbar abscess; and the error was not discovered till after his death, an event preceded by violent and unremitting pain. The changes in the shape of the thorax are considerable. The ribs along the side of the concavity are compressed and huddled together; often ossified to the vertebræ, sometimes to one another. Here is a specimen in which several consecutive vertebræ with their ribs are joined together by bony matter. The pelvis is not altered in form, except in cases of deformity proceeding from rickets. The muscles retain their normal colour and attachments; but, owing to the altered shape of the spine, their action is abnormal. They do not, however, exercise in this stage of the affection any marked influence of importance upon the deformity. The lungs suffer a great amount of compression. Suppose the curvature be to the right, the posterior border of the mediastinum is carried in the same direction, the right lung loses in its transverse diameter until it is spread out as a thin layer. It there lies deprived of air between the ribs and the bodies of the vertebræ. The left lung is also diminished in volume, but to a considerably less degree, because it lies in the hollow of the concavity. The heart seems to vibrate against the ribs; the right cavities become dilated in consequence of the continued obstacle presented by the compression of the lungs to free pulmonary circulation. The aorta pursues the course of the curves, lying sometimes to the left, sometimes in front, or in some situations a little to the right of the median line. I have seen no instance in which any of the vessels have become absolutely impervious in consequence of being twisted or compressed; but the sudden turns must exert an influence on the circulating current. The liver, spleen, and stomach experience many changes in position; but no organ more so than the kidneys. That kidney corresponding with the convexity becomes elongated, thinned, and reduced in bulk; that situated in the concavity becomes broader. But pressure may make the kidneys shrink or undergo changes interfering with their healthy secretion.

I might go far more into detail on these points of pathology, but have said sufficient to show you that the condition of a person afflicted with lateral curvature is not one to be treated summarily. Changes of form so important as these cannot take place unattended by symptoms, which are the more severe in proportion to the rapidity of change in the figure, and the importance of the organ affected. The patient complains of pain, first in the projecting shoulder; secondly, under the breast. We have heard much of late of "infra-mammary pains." This is one form of them. Next, she suffers from headache, and sometimes accompanied by dizziness. The pains extend down the arms and legs; to the iliac fossa; to the region of the heart, which organ becomes affected with palpitation and irregular action. There is a sense of "sinking" on the side of the concavity; the patient can lie only on one side. I have known severe fits of epistaxis supervene. If we examine the spine with care, we may soon detect the seat of the curvature, which perhaps includes only a few vertebræ, or may affect the entire column below the neck. The skin is often morbidly sensitive, and patients shrink from the touch as if there were real carious disease of the bodies of the vertebræ. This "hyperæsthesia" is a common symptom attending spinal curvature, and often leads to the erroneous conclusion of structural disease.

As the deformity proceeds, the shoulder projects the more, and constitutes that hypothetical accident of anatomists—"dislocation of the scapula over the borders of the latissimus dorsi." The compression to which the lungs are subjected leads to greater diminution of volume; the enlargement of the right cavities of the heart increases; the palpitations become more severe, the breathing hurried and laborious. In the course of time the lungs become emphysematous; and the aspect is blue and livid. In this condition the patient may drop down suddenly, and die.

The body of a middle-aged man, picked up lifeless in the street, was brought into this hospital last Christmas-day. An examination was necessary to establish the cause of death. The body was fairly nourished. The neck was about an inch in length, the lower jaw projecting directly above the sternum. The thorax was pyramidal in shape, the apex being at the upper outlet; the sternum projecting forwards at an angle of forty degrees with the axis of the body. The whole thorax was much shorter than natural, and the sides were flattened and compressed. The lungs were about half their average weight, and emphysematous; the left lung being quite out of sight and lying behind the heart, which organ was uncovered by lung and enlarged, and its cavities filled with a large quantity of blood in black clots. The abdominal viscera were displaced; the liver was pushed forwards; the stomach wholly on the right side, and full of half-digested food. The whole of the viscera having been cleared away, there was noticed great deformity of the spine. A curve, commencing about the third cervical vertebra, inclined towards the left for an extent of three inches to about the level of the centre of the left clavicle; then making a sudden bend towards the right, it reached the mesial line about the sixth dorsal vertebra; keeping nearly in that line, it projected gradually forwards to the second lumbar vertebra, and then receded, at first gradually, but suddenly sinking back into the pelvis. The bones of the vertebral column were not roughened, nor was there any ulcerative loss of substance in their bodies. There was considerable alteration of form in the upper part of the curve; for the sides of the bodies, instead of being nearly at right angles with the articulating surfaces, met them obliquely, presenting the "rhomboidal" form of Delpech. The tissue of the muscles of the back and neck was perfectly healthy. (For this examination and its details I am indebted to the industry of Mr. Catt, one of the house-surgeons. Similar cases have been seen by other surgeons.)

I once attended a married lady, about thirty years of age, the subject of this deformity, who suffered so severely from disturbance of the circulation, that she feared to walk alone in the streets, lest she should fall from sudden faintness. She had taken all kinds of medicine without avail; but these symptoms subsided as the spinal deformity became rectified. This general state of irritation, affecting the whole system, will prevent impregnation—a great disappointment in many families. I have known this disturbance rectified by treatment directed to the spine.

A vitiated state of the secretions of the stomach, disturbance in the functions of the alimentary canal or kidneys, are likewise concomitants of this affection; while, in other cases, the curvature and rotation of the vertebræ increase with such rapidity, as to interfere, by means of direct influence on the spinal cord, with the control of the will over the muscles of the lower extremities. Patients suffer from contraction of the heel (talipes equinus), as illustrated by a case related in a former lecture; or from contraction of the heel, combined with adduction of the thighs, as in the cast now before you; or from violent spasms and uncontrollable pain. I say then with reason, that the compass of the pathology of spinal curvature is wide, and that much still remains to be discovered. What is the condition of the child born with the congenital variety? Is there a congenital difference in the conformation of parts on the two sides of the body, predisposing to the deformity, and leading to the development of such irregular vertebræ as that which I have shown to you? Ought we to recognise general debility of muscles and ligaments as alone sufficient to predispose to non-congenital spinal curvature; or must we also seek for imperfections of

form in the osseous framework? How far are the viscera capable of adapting themselves to these changes of form, without functional disorder and disturbance of the general health? That vessels do not become obliterated we have reason to believe; but can the circulating fluids flow easily through tubes distorted and turned from their common course?

(To be continued.)

ON THE

TREATMENT OF UTERINE INFLAMMATION BY NITRATE OF SILVER AND OTHER SUBSTITUTIVE AGENTS.

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In using these agents, we only apply the general principles of therapeutics to the treatment of inflammatory affections of the womb and its associated organs. The utility of a solution of acetate of lead in inflammatory affections of the skin implies similar utility in inflammatory affections of the vaginal mucous membrane; the utility of solutions of borax and of chlorate of potash in affections of the mouth pointed to their trial as vaginal injections; the utility of sulphate of zinc and nitrate of silver in urethral strictures, demonstrated by J. Hunter, Sir E. Home, Lallemand, &c., suggested their employment in uterine catarrh; the sovereign utility of the solid nitrate of silver for the cure of cutaneous ulcerations caused it to be tried in ulcerations of the womb. To whatever mucous membrane these agents are applied, they act in the same way—they substitute a therapeutical irritation, susceptible of being graduated to a morbid irritation, which might uncontrollably compromise the structures attacked—a temporary irritation to one that tends to become permanent.

In treating of injections, I have already enumerated several agents which act in this way, such as borax, chlorate of potash, acetate of lead, alum, sulphate of zinc, &c. They are generally given largely diluted, but if used in a solid or a highly concentrated state, the action of these agents would be analogous to that of two other important agents, nitrate of silver and tincture of iodine, which are called caustics by courtesy, but are no more caustics than tincture of cantharides. I wish it to be clearly understood that I hold these agents sufficient for the surgical treatment of uterine inflammatory diseases in the large majority of cases, and so does Dr. H. Bennet, although it has been stated that we use strong caustics in ordinary cases of uterine disease. In a comparatively small number of instances, the structures of the womb have been too deeply modified by inflammation or by hypertrophy, and are in so low a state of vitality, that the above-named agents are insufficient to bring about the cure of disease. Then I have recourse to another class of substitutive agents, which are undoubted escharotics, for they cause a loss of substance proportionate to the amount of caustic used. These caustics induce healthy acute inflammation in the tissues underlying the eschar, and, by judicious management of this healthy inflammatory action, the cure of chronic cases is often induced.

The caustics of which I shall treat are, the acid nitrate of mercury, potassa fusa cum calce, potassa caustica, and the actual cautery. At first sight it may seem strange to class together sulphate of zinc and potassa fusa cum calce, but one is justified in doing so, because the substitutive action which I ascribe to a solution of sulphate of zinc is pre-eminently shown in the results of potassa fusa cum calce, which often so raises the vital endowments of the uterine tissues as to promote rapidly healthy nutritive action in tissues which had been diseased for many years.

Such is my mode of practice, and I am glad to find that it accords to a certain extent with the practice of all whose opinion carries weight, and who, having in vain tried to cure uterine disease by nitrate of silver or milder measures, have recourse to one or the other of the strongest caustics. Dr. Fleetwood Churchill depends on nitric and muriatic acids, and on the acid nitrate of mercury, which is also preferred by Dr. E. Kennedy and by Dr. West; and although this distinguished pathologist considers ulceration of the cervix to be a condition of slight pathological importance, when he has to trace out a plan of treatment for his pupils, he has none other to propose than that already long ago carefully laid down by Dr. H. Bennet. The late Dr. Rigby, though adverse to the surgical treatment of uterine affections, admitted that there were certain cases of uterine ulceration requiring the use of potassa fusa or potassa fusa cum calce. Dr. H. Bennet prefers potassa fusa cum calce. This is not energetic enough for Professor Simpson, who uses potassa caustica; while the French strongly advocate a remedy older than Hippocrates, the actual cautery.

These comments upon the treatment of uterine inflammation will show that I am an eclectic, and that I use all the valuable agents which I have enumerated in certain cases which I shall specify. Again reminding the reader that I am not writing a treatise, I shall proceed to comment on the use of our principal substitutive agents.

Tincture of Iodine.—It is the ordinary tincture of the Pharmacopœia which I mean, not the caustic tincture. I shall be brief on this agent, having already mentioned it as a revulsive, and having compared it with others then under discussion. Tincture of iodine seems to act as an astringent when slightly applied to the hypertrophied or inflamed surface of the neck of the womb, but as a vesicant if several applications are made at one and the same time, and as a resolutive if re-applied every third or fourth day. It is much less useful than nitrate of silver as a topical application, but it suits better some idiosyncrasies, and is well borne in diphtheritical inflammation, when nitrate of silver should not be used. The fact that a solution of iodine can be injected into closed cavities and fistulous passages, without severely inflaming them, marks it out as the best liquid to be injected into the body of the womb, in the very rare cases requiring such treatment; for it has less frequently given rise to the alarming symptoms of peritonitis, which have very often followed the intra-uterine injection of a solution of nitrate of silver. I use one drachm of the tincture to an ounce of distilled water, and inject it by means of an instrument similar to that devised by Mr. Coxeter for injecting fluids into the larynx.

Nitrate of Silver.—"The application of nitrate of silver is a means, under certain circumstances, of subduing external inflammation. Might it not, on this principle, be of service in the treatment of the internal phlegmasiæ?" Such was the question asked by Mr. Higginbottom in the preface of his admirable little work on "The Lunar Caustic," published in 1826. His question has been answered in the affirmative by a great many eminent practitioners, who have applied nitrate of silver for the cure of inflammatory affections of the mucous membrane of the eyes, ears, mouth, throat, urethra, the intestines, and the rectum. As regards the mucous membrane of the genital organs, Dr. Jewel, in 1830, strongly advocated its use; and I have no hesitation in saying that this agent is quite as useful in curing the varied inflammatory conditions of the genital organs as in curing those of the skin. It is often necessary to preface the use of nitrate of silver by linseed tea, poppy-head, or other cooling injections, in the same way that Mr. Higginbottom repeatedly inculcates the utility of cold poultices previous to applying nitrate of silver to the inflamed skin. If, after antiphlogistic treatment, the solid nitrate of silver increases too much habitual pains, or causes the ulcerated surface to bleed for two or three days afterwards, it is well to try a solution of from forty to sixty grains of nitrate of silver to an ounce of distilled water. In many cases the solution is sufficient to effect a cure; it gives less pain, but it may be necessary to repeat it every third or fourth day. Sometimes I use a solution of nitrate of silver containing one ounce of the salt to two or three ounces of distilled water, as an application to ulcerated surfaces. Chronic uterine catarrh, or inflammation of the mucous membrane lining the neck of the womb, which has been truly called an open gland pouring out mucus from ten thousand follicles, seems to me the most frequent of all uterine diseases. Without having the slightest abrasion, the mucous membrane lining the neck of the womb and its vaginal surface may be of a dusky, livid hue, tender on being touched, and secreting pus. This condition may last for years, but it generally leads to more or less extensive denudation of the villi of the uterine mucous membrane, and gives an excoriated appearance to the neck of the womb. Such cases, with or without excoriation, can be cured by the nitrate of silver in solution, used every fourth or fifth day, with the occasional use of the solid nitrate. If the mucous membrane lining the cervix be principally affected, it is often so obstinate as to render the painting of it with the solution of little use. The solid nitrate must be freely employed, and when the cervical canal is unusually dilated, I sometimes leave about one-eighth

of an inch in the canal; by which it will be clear that, so far as my experience goes, should the stick accidentally break in the cervical canal it need give no alarm. What cannot be removed will cause more pain, some loss of blood, and perhaps even a return of menstruation; but the patient may be repaid for greater suffering by a speedier cure. It has been stated by Nonat that this mode of treatment has caused stricture of the uterine canal in his practice and in that of Richet. I have never met with this accident, and I think its occurrence is to be prevented by the occasional passage of the uterine sound for a few weeks after this severe application.

With regard to the treatment of the various forms of ulceration of the neck of the womb, I can add nothing to what has been so well laid down in Dr. H. Bennet's work. Mr. Higginbottom, whose statements with respect to the action of nitrate of silver deserve the highest consideration, affirms that its action does not extend beyond three days after its application; and it is generally received that it is necessary to repeat the use of this agent so soon as the epithelial pellicle has fallen off, or every third or fourth day. In many instances this is the best way of ensuring the most rapid recovery; but I do not recommend the too strict adherence to this precept, as it is often well to leave five, six, or seven days' interval between the applications, or we might work as did Penelope, and retard the cure of the case. This, however, is a matter of surgical experience in each individual case.

Whether vaginitis occurs spontaneously or as the result of uterine catarrh, it is best cured by the injection of a solution of nitrate of silver. This is an excellent idea of Dr. Jewel, but if the solution be sufficiently strong to do good it cannot be safely trusted to the patient. The patient being placed on her back, a small glass speculum should be introduced as far as possible, and an ordinary glass syringe full of a solution of nitrate of silver, containing forty grains to the ounce, should be injected. The speculum should then be withdrawn to the vicinity of the vulva, and the fluid should be left in contact for three or five minutes, after which the speculum is to be withdrawn, and the fluid received in a small cup. Sometimes I apply a speculum of appropriate size, and as I withdraw it I pretty freely touch the vagina with the solid nitrate of silver diluted by chloride of silver, as prepared by Mr. Squire. This is a modification of a plan recommended by Ricord.

I recommend these injections where there is evidence of inflammation of the womb, with excoriations of its cervix, in virgins in whom the integrity of the hymen prevents the introduction of a moderate-sized speculum. This plan should be first tried before forcibly dilating or incising the hymen—an operation which is very rarely required. I have frequently made these injections in many cases, and I do not once remember having traced menorrhagia to their administration. I mention this as it seems to have often occurred in the practice of Dr. Fleetwood Churchill. So many serious accidents have followed the injection of the solution of nitrate of silver into the body of the womb, that I prefer using tincture of iodine in solution whenever intra-uterine injections may be required. In very rare cases of chronic internal metritis it may even be necessary to apply the solid nitrate of silver to the internal surface of the body of the womb, as well as to adopt other modes of treatment, for an account of which I refer the reader to my papers on the Treatment of Internal Metritis.*

In follicular inflammation of the labia, in eczema and prurigo pudendum, or pruritus both external and vaginal, a piece of cotton-wool should be soaked in the solution of nitrate of silver, and carefully rubbed for two or three minutes over the diseased portions of the skin and mucous membrane. I can speak with confidence of this plan, for I have lately cured several patients who had been suffering in this way for four, eight, and thirty years. When cases have lasted so long the pudendal skin looks and feels like parchment. It was so in the case of a lady in whom the disease had lasted thirty years, and I first rubbed in the solution every day, then every other day, then every fourth and fifth day, until the skin became soft and pliable, and the sleep was no longer disturbed by darts of pain flashing along the nerves. This patient was cured in three months, and has had no relapse during the last year.

I trust I have said enough in praise of nitrate of silver; but in many forms of uterine inflammation much more severe agents are required to restore the womb to a healthy state. This fact is admitted by so many authorities at home, in America, or in foreign countries, that I am surprised to find the contrary asserted by Dr. Meigs and Dr. Tyler Smith. After describing the evil effects of caustics in the treatment of uterine disease, the latter pathologist, in his work on "Leucorrhœa" (p. 203), gives as his opinion that "there is no good which can be effected by the more powerful caustics which cannot be accomplished by the nitrate of silver, or by other means. It is true that by the prolonged application of the nitrate of silver loss of substance may be caused; but this is far less likely to occur with lunar caustic than with the more powerful escharotics. It is also true, that some practitioners apply the more violent caustics so lightly that they do not exceed the milder medical action of the solid nitrate of silver; but in such cases it would be quite as well to use the safer remedy where a caustic is required." And, at p. 206, "In applying the nitrate of silver, the aim should be not to produce any slough or loss of substance." Thus it is clearly stated that the slight application of the strong caustics is tantamount to the full action of the nitrate of silver in like cases of uterine disease.

My experience, on the contrary, teaches me that nitrate of silver is no more a caustic than tincture of cantharides, as Mr. Higginbottom has long ago asserted. The distinction that Dr. Meigs draws between the antiphlogistic touches and the escharotic action of nitrate of silver, does not bear examination. Use it as you may, the nitrate of silver does not cauterize. Leave it in the neck of the womb, it will cause more pain, loss of blood, and subsequent discharge, but no destruction of tissue, unless coagulated mucus mixed up with epithelial scales and insoluble chlorides of silver can be called such. Even when applied to a fungous ulcer, the slight loss of substance is rather due to the friction of a hard body on a pulpy surface than to the chemical combination of the neutral salt and the diseased tissues. A densely hypertrophied neck of the womb might be whitened with the solid nitrate of silver every fourth day until doomsday, without much reducing its bulk. Indeed, I have seen such a plan of treatment injudiciously continued for a year or longer in a case of hysteralgia, the neck of the womb being healthy and of an average size, and the effects were rather astringent than caustic, condensing the tissues, narrowing the cervical canal, and rendering its dilatation necessary and difficult. Thus, while nitrate of silver may be repeatedly applied without inducing a loss of substance, the slightest application of the potassa fusa to the neck of the womb produces an evident loss of substance; and, therefore, the two agents, however applied, produce totally different effects in similar cases. This is a question of surgical therapeutics which can be decided by any experienced surgeon. Writing on the treatment of stricture caused by gristly thickening of the urethral mucous membrane, Mr. Wade records his twenty-five years' experience of the comparative advantages of nitrate of silver and of potassa fusa, and he states: "I cannot let this opportunity pass without again calling attention to the fact, that the effects of the argentum nitratum and of the potassa fusa admit of no comparison, as they are totally dissimilar; that the former, when freely used, from its tendency to cause adhesive inflammation, has often been found to increase the urethral obstruction, whilst the remarkably solvent powers of the latter have no such tendency."*

The too free use of nitrate of silver to the nodular tissues of the urethra causes urethral stricture, as the too free use of the same agent to the cervical canal causes stricture of the neck of the womb, but without loss of substance. Indeed, if the whole range of diseases in which nitrate of silver is now used be passed in review it will be found that it always acts by its dynamic, astringent, and antiphlogistic properties; whereas escharotics can only raise the standard of vitality of any given tissues by the previous destruction of their superposed surface. I maintain, on the contrary, that there is one good to be done with the more powerful caustics which cannot be accomplished by the nitrate of silver; that is, to shorten the treatment of many cases in which it is *at first* judicious to try it. Ulceration of the neck of the womb, on a hypertrophic basis, may doubtless be sometimes cured by the use of nitrate of silver, but the treatment might be indefinitely prolonged; whereas it can be very much shortened by one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. When the inner cervix is chronically inflamed, nitrate of silver may enable us to effect a cure; but with that agent, however applied, cures are sometimes so tedious that it is well to resort to one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. In fungous and varicose ulceration the nitrate of silver causes the surfaces to bleed profusely, and does more harm than good; whereas I find that in these cases the acid nitrate of mercury and the actual cautery stop the bleeding and promote a cure. I think it right to be sparing of caustics to the neck of the womb in pregnant patients; but I have seen cases similar to those described by Dr. Bennet in which it was neces-

* THE LANCET, 1853, vol. ii.

* Wade: Stricture of the Urethra, Fourth Edition, p. 117.

sary to stop an abundant purulent and bloody discharge from a large varicose ulcer, and I have done so with the acid nitrate of mercury after doing more harm than good with the nitrate of silver. So little are caustic agents and nitrate of silver interchangeable substances or therapeutical equivalents, that I find nitrate of silver in some cases to be positively poisonous, while potassa fusa c. calce conduces to recovery. In diphtheritic inflammation of the neck of the womb and of the vagina, nitrate of silver acts as a poison. In a case now under treatment there is a small patch of false membrane on the posterior lip of the os uteri, and around it are numerous ulcerations. Were I to touch them with nitrate of silver they would soon be covered with false membranes. Tincture of iodine would not produce this effect, neither would the potassa fusa c. calce; these, therefore, are the best means of curing this most tedious complaint, of which I have seen two instances and Dr. Bennet three, and he would endorse what I affirm of such cases. Occasionally we meet with cases like two I am now attending, in which an extensive superficial excoriation of the neck of the womb bleeds profusely, and for the following two days, even when only touched with the solution of nitrate of silver, which likewise makes the sore more angry. In these cases I have nearly effected a cure by dressing the wound with tincture of iodine or the acid nitrate of mercury.

The profession is more and more convinced of the great utility of caustics in many diseases; were it otherwise, surgery would be deprived of a valuable remedy, and the obstetric art robbed of the only means of curing the most distressing cases of uterine inflammation. Patients would thus have to drag on from year to year their weary load of misery, with the only hope that the cessation of menstruation, by putting an end to the physiological liability of the womb, might also check its liability to inflammation.

Grosvenor-street, Feb. 1861.

AN INQUIRY INTO A FREQUENT CAUSE OF INSANITY IN YOUNG MEN.

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PART I.—(*Concluded.*)

8. *Religion.*—This is a question not only of interest, but of importance as regards treatment. I mean whether circumcision as practised amongst the Jews exercises an effect as a preventive measure. I am inclined to believe it does exercise some effect; for although insanity is common amongst the Jews, and although a considerable number have been received into this asylum, I can find one instance only amongst the 119 in which the Jewish religion was professed. Circumcision appears therefore to be not without benefit as a preventive means, but the vice occurs amongst the Jewish nation in spite of the universal prevalence of that operation or religious rite.

As regards those professing the Christian religion, it is ascertained that 33 private and 26 pauper patients professed the religion of the Established Church. 27 privates and 21 paupers (48 in all) belonged to various Dissenting forms. In 3 private and 8 pauper lunatics the form was either not known or not stated. In other words, 59, or one-half, of the cases belonged to the Established Church, and the other half to various dissenting bodies, or professed no form or the form was not ascertained.

One fact is striking: that the proportion of Protestant Dissenters amongst the private patients is large; they amount to 27.

It might be expected that these cases would chiefly occur in members of families of strict religious education. Experience supports this expectation; and facts also show that those who from this cause become insane have generally, to all appearance, been of strictly moral life, and recognised as persons who paid much attention to the forms of religion. As will be afterwards more fully stated, it is frequently observed, especially in the acute attack resulting from this cause, that religion forms a noted subject of conversation or delusion.

9. *Hereditary predisposition.*—This head presents especially two points for consideration:—1st. Is masturbation of itself sufficient to cause insanity? Or, 2nd. Does insanity only become developed when predisposition to insanity exists, and after the system has been reduced by the vice?

One fact would appear to favour the latter suggestion: it is that insanity in these cases becomes manifest at so early an age; but this is met by the assertion that the vice is practised chiefly at that period when the system is yet undeveloped and easily impressed.

What will statistics prove? Let the difficulty in obtaining correct information on this head be borne in mind. As it is, the evidence, it must be allowed, is scarcely more than presumptive.

Of the 64 private cases, in 24 no relative was stated to be insane, 25 had relatives insane, and in 15 cases whether or not hereditary predisposition to insanity existed was not ascertained.

Of the 55 pauper cases, in 3 no relative was stated to be insane, 23 had relatives insane, whilst in 32 instances predisposition was not ascertained.

In 45 out of 119 cases, predisposition, as shown by relatives being insane, existed; in 47 its existence was not known; and in 27 instances it was stated not to exist.

It is generally held that predisposition in the father affects the son more than the daughter, and that disease in the mother affects the latter rather than the former. These cases would appear to a certain extent to support the first axiom; for of the 45 cases, predisposition existed on fathers' side in 19 instances, and on mothers' side in 7; in 2 cases a brother and sister were both insane; in 3 instances a sister was, and in 2 a brother; in the remaining 12 the uncle, aunt, or cousins were afflicted, but on which side is not known.

Could correct statistics be obtained, it is probable that a larger proportion of hereditary predisposition would be found. The consideration of these facts is by no means conclusive; but there can be no doubt that when predisposition to insanity exists the mind succumbs much sooner to the undermining cause, and that this predisposition does not affect the peculiar phenomena of the manifestation of the insanity due to vicious indulgence.

10. *Form of mental disease.*—The tendency of the mental affection is towards dementia, although the form of mental disease in the 119 cases when admitted is thus entered in the admission-book:—

24	were entered as suffering from	ordinary	mania
27	,,	,,	partial mania
29	,,	,,	dementia
24	,,	,,	melancholia
5	,,	,,	imbecility
10	,,	,,	acute mania

The curability of insanity is in proportion to the acuteness of the symptoms. In the fact that 10 cases only presented acute indications there is one reason why the cures in these young men are so few; while the dementia, melancholia, and imbecile number 58, and the partial and chronic mania 51. There is therefore a large proportion of the less curable forms when admitted.

11. *Results of treatment.*—On examining the results of treatment in these cases, it is ascertained that 21 of the 119 under treatment recovered; 19, or nearly the same proportion, were relieved; 66 were either discharged not improved, or continue so in the asylum; 13 died.

The average per-centage of recoveries on admissions in the English asylums may be stated as about 40; whilst the recoveries on the 119 cases give a per-centage of only 17·64.

The recoveries on the admissions are as follows:—Of the 10 acute cases, 6 recovered; of the 24 chronic or ordinary mania, 2 recovered. In one of these the asylum treatment was continued for four weeks with this satisfactory result; but the patient was re-admitted the following year, removed relieved, and again admitted, and now forms one of the resident demented cases. Such results are by no means infrequent.

Of the 27 partial cases, 3 recovered; of the 24 melancholics, 8; and of the 29 demented, 1 terminated thus happily. The proportion of recoveries to form of disease on admission will, therefore, stand thus:—

Of the acute, 6 recovered,	= 1 in	1·6
Of the ordinary, 2 ,,	= 1 in	12·0
Of the partial, 3 ,,	= 1 in	9·0
Of the melancholic, 8 ,,	= 1 in	3·0
Of the demented, 1 ,,	= 1 in	29·0

Acute mania and melancholia appear, therefore, to be the forms of mental disease in which the most favourable result may be expected. The small proportion of recoveries amongst the demented is very marked.

12. *Deaths.*—Of the 119 cases treated, 13 terminated fatally; of these, 2 occurred in ordinary, and 1 in partial, mania; 4 of the melancholics, 4 of the demented, and 2 of the imbecile, ended in a fatal result. In the acute cases no deaths occurred. The deaths, therefore, appear to bear, according to the form of disease, an inverse ratio to the recoveries.

The causes of death were—

In 5 instances,		nervous exhaustion.
In 3	,,	phthisis.
In 1	,,	cholera.
In 1	,,	coma.
In 1	,,	serous apoplexy and granular kidney.
In 1	,,	disease of heart and kidneys.
In 1	,,	pneumonia.

10 of the deaths occurred amongst the pauper patients: of whom 3 died from exhaustion, and 2 from phthisis; but this I regard as a mere coincidence.

The fatal termination in the 4 demented cases was due to phthisis, exhaustion, pneumonia, and, in the fourth instance, the cause was serous apoplexy arising from granular kidney.

The causes of death in the 4 melancholics were—exhaustion, 3; phthisis, 1.

In ordinary mania, one died of exhaustion and the other of coma.

In the partial mania case, heart disease and nephria caused the fatal result.

Of the 2 imbeciles, phthisis proved fatal to one and cholera to the other.

Disease of the chest and nervous exhaustion are the most frequent causes of the fatal terminations; but with the exception of three out of four melancholics dying of nervous exhaustion, the relations of causes of death to form of insanity present no peculiarity.

Although diseases of the abdominal organs form but a small proportion of the causes of death, still, during life, the most frequent complications are due to disorders of these viscera.

The inactive condition of the primæ viæ is at all times marked, and is no doubt due to the impaired state of the nervous system, which is so prominent a feature in these unhappy victims.

On referring to the age of those who died, I find that the earliest death was at the age of 21, the age on admission having been 19. The most advanced age at death was 54, the age on admission having been 53; and the patient had been insane since the age of 35. In both instances the cause was exhaustion.

The average of the 13 deaths gives the age of 31·2 years; but it must be remembered that these deaths are extended over a period of fifteen years, and of the cases admitted during that time several have attained the age of 40, two that of 50, and by another the age of 60 has been reached.

13. *Suicide.*—Esquirol states that masturbation frequently leads to suicide; it may therefore be not uninteresting to learn in how many instances this tendency was manifested previous to admission. Self-mutilation is also not an infrequent accompaniment; but correct statistics on this point I am unable to obtain.

Analogous to danger to self, is the propensity to do injury to others, and, in passing, a glance may be given to ascertain the frequency of this.

4 of the private and 9 of the pauper patients (13 in all) had been suicidal, but not dangerous; 26 private and 12 pauper, had been dangerous to others; whilst 8 private and 11 pauper, had not only been suicidal but dangerous to others.

In 32 instances, therefore, a suicidal disposition had been evinced previous to admission; and in 57, a tendency to do injury to others existed.

37 patients were neither suicidal nor violent; and in 12, as no statement is made as to violence to self or others, it may be concluded that no disposition had been manifested, or allusion would have been made to it.

From these facts, violence to others would appear to be of more frequent occurrence than violence to self. This will, however, be again alluded to in the second part of this paper.

14. *Epilepsy.*—The vice is by some considered to be a cause of epilepsy. This statement, however, requires further proof than has yet been adduced.

Most confirmed male insane epileptics indulge in the propensity; but this succeeds, rather than precedes, the first epileptic attack.

In three of the cases I have collected, epilepsy was combined with the insanity, and had, there is reason to suppose, been preceded by indulgence. If it be said that the epilepsy in those so afflicted who practise the vicious habit in the asylum was due to it, then must the vice be of much more frequent occurrence than I have been able to trace. But I do not find that it had preceded the epileptic attacks in other of the many epileptics in this asylum than those I have adduced.

The opinion that vice occasions epilepsy would appear to have gained weight from the fact that epileptic fits have in a few instances been stated to occur only during periods of intercourse; in others, that fits in those subject to them have at such periods been more frequent. But with regard to the first class, it may be urged that the fits, for obvious reasons, were *only detected at those periods*, and it is commonly known that married persons will tell of fits only happening at particular times; but when asked whether the fits may not also have occurred during sleep (one of the most common periods being soon after going to sleep), they will reply that they cannot say but that they might have, and on reflecting a little will occasionally recollect that, from certain circumstances your remarks may have recalled, it is probable that fits have occurred at other periods than they first stated.

From this the conclusion may be drawn that epileptic seizures in those predisposed may be excited by certain acts; but that these acts in the unpredisposed occasion the epileptic paroxysm is still to be doubted.

The same conclusion is arrived at in the other class of known epileptics having fits at certain times. In these, as in the first, the intercourse *may excite* a paroxysm (although I never met an epileptic who could decidedly say that the act had done so), but it still remains unproved that the *first paroxysm* was due to sexual irritation. Besides, the epileptic presents distinctive characters of physical development; but these, in the masturbator, are wanting.

Has not the relation between the vice and epilepsy been too readily received on too faulty data?

One reason why the vice is practised by old epileptics is, that it is repeatedly found that emission has occurred during the epileptic convulsion, and the frequency of this probably suggests to the subject of that disease to practise the vicious habit in the intervals. *It will not, however, be found that a paroxysm follows* indulgence, or has been excited by it.

Some may, perhaps, believe that one cause of the frequency of fits at night is due to the habit being practised at that time; but the argument against such an opinion would be, that females as well as males are subject to attacks of their convulsive malady during sleep. Yet it is not found that the former lose the epileptic type of physical robustness as years advance, as do the latter, and I am not aware that epilepsy has been proved to have been produced in females by sexual irritation.

Of the three cases to which I have alluded above, the following particulars were ascertained:—Of the first, no history could be obtained, the patient being a wandering lunatic; but when admitted, the eye (so different from that of the true epileptic) and appearance were typical. In the second, the fits commenced at twenty-two years of age; but whether convulsive attacks in childhood had occurred could not be ascertained. The third case was interesting in this, that the patient himself stated that the fits commenced when he was nine years old, and that he considered that indulgence (suggested by older companions) had been the cause; but in this case, from his possessing the true epileptic characteristics, and from there being reason to believe that the disease was hereditary, I cannot conclude that it had been caused by his vicious propensity. Had it not been for the statement of the patient himself, this case would not have been included amongst the 119.

Such are the results of an inquiry into the statistical portion of this subject; and, in concluding it, I may direct attention to the following facts:—

That although a marked difference exists as regards the frequency in different ranks, there is a singular agreement in the age at which these cases occur, and in the occupations followed. That whilst 113 cases occurred in single men, 6 were married, and 5 of these were of the pauper class. As regards sex (although the subject of this paper is "Insanity in Young Men"), that the mental effects appear to be very much less severe to females than to males, but that the mind, in some cases, does succumb to the cause, and the condition of dementia become established. The proportion of cases in both ranks from town and country is nearly the same; whilst the number of cases from towns largely exceeds that from the country.

As regards religion, that the cases are nearly equally divided between the Established Church and Dissenters; that in the acute form, religious delusions are common, and that these attacks may be attributed to other than their true cause from the persistence of the religious fears. Although predisposition to insanity may exist, that no effect is exercised

thereby on the mental and physical phenomena of the disease, except it be that the mind may become sooner affected by the undermining cause. The cases also appear to support the generally received statement, that predisposition in the father affects the son more readily than when the predisposition is on the mother's side. Although a variety of forms have been entered in the admission-books, that when the cases do not improve they tend to dementia; but that the greater proportion of the acute and melancholic cases terminate favourably, whilst recoveries from the demented form are very rare. That the deaths are only 1 in 9 of the total cases, the largest number being due to nervous exhaustion, and in 3 cases to phthisis.

As regards suicide, the tendency occurs chiefly in the acute and melancholic cases; whilst violence to others is of more frequent occurrence, and is distributed over all the forms. And, lastly, that although epilepsy is by some believed to be due to the habit, there does not appear to be sufficient data for the reception of the statement, but that it may be allowed that in those predisposed sexual irritation may occasionally excite the epileptic seizure.

THE MEDICAL HISTORY OF THE RECENT CASES OF POISONING IN THE FLEET-LANE SEWER.

WE are indebted to Mr. Luther Holden and Dr. Letheby for the following interesting account of the medical and chemical history of the recent cases of death in the Fleet-lane Sewer. The condition of our sewers, forming as these structures do so vast a system of channels running under the streets, and communicating by countless air-shafts, gulleys, and house-traps with our dwellings, and the air we breathe, is of great importance in a sanitary point of view. When we also reflect upon the fate of these poor men who lost their lives, and upon the dangers to which those of their class whose occupation lies in the sewers are exposed, the duty of studying the causes which modify the conditions of the atmosphere in them is obvious and imperative. It appears that a complete autopsy of one man only was made.

Post-mortem Examination (four days after death) of the Body of Peter Ryan, aged forty-one, found dead in one of the London Sewers.

External appearances.—A remarkably fine, well-made, muscular man. Rigor mortis still persistent. Upper parts of the body and face unusually pale; no prominence of blue veins; countenance natural; eyelids closed; pupils somewhat dilated; both hands semi-flexed. The lower portions of the body, except those beneath the shoulders and buttocks, which were subjected to the pressure of the weight of the body, were of a reddish colour.

On cutting into the muscles of the body, they were found to be rather darker than usual. A quantity of liquid dark blood escaped on removing the parietes of the chest. Some of this was preserved for further examination. (No putrescent or offensive smell was perceived on opening the chest or the abdomen.) The lungs were anteriorly pale, crepitant, and somewhat emphysematous; posteriorly, congested with dark-coloured blood. On the right side there were old pleural adhesions. Both auricles were full of dark-coloured liquid blood; no attempt at coagulation anywhere. The right ventricle and pulmonary artery also contained liquid blood; also the left ventricle and the aorta. The muscular substance of the heart was softer and more flaccid than natural. The trachea and bronchi contained bloody froth; the mucous membrane of the air-passages was congested. Stomach contracted; void of food; contained some blood-stained mucus, of an offensive odour, but not possessing the reaction of sulphuretted hydrogen. Brain substance remarkably firm and healthy-looking; the sinuses of the dura mater were full of dark liquid blood; the vessels of the pia mater were much as usual after death.

St. Bartholomew's Hospital, Feb. 13th, 1861. LUTHER HOLDEN.

The Medical and Chemical Examination made by Dr. LETHEBY.

The only fact which I would add to the above is, that when I saw the men at St. Bartholomew's Hospital on the afternoon of the day of the accident (Friday, the 8th inst.), there was little or no rigor mortis; the faces were pale and composed; the eyes open, not glistening or turgid; pupils *widely dilated;* mouth a little open; lips and tongue livid. These are precisely the appearances observed in the three men killed in the Whitechapel sewer in 1857. The dead rats found in the neighbouring sewers showed similar post-mortem appearances:—little or no rigor mortis; pupils dilated; tongue and lips purple; blood black and fluid; lungs congested, especially at dependent parts; heart full of black fluid blood; right side gorged; left auricle also gorged, and bloody froth in the trachea.

These are characteristic of sulphuretted hydrogen, and therefore I have no doubt as to the cause of death. But whence the sulphuretted hydrogen? It was not in the sewers when the men went down: indeed the Fleet sewer and Fleet-lane sewer, in which the accident occurred, are remarkably free from this gas. It evidently came upon the men suddenly, and killed them before they had time to retreat: in fact, several of the rats were killed while in the act of eating. The source of the gas must have been either (1st) the sudden discharge into the sewer of a liquor saturated with sulphuretted hydrogen, as refuse gas liquor; or (2nd) the sudden escape of a large quantity of sulphuretted hydrogen from the deposit or mud which the men were disturbing; or (3rd) the action of an acid liquor suddenly let into the sewer upon the exposed or disturbed mud. I have sought for the most probable of these:—

1st. There is no evidence of gas liquor or any other sulphuretted hydrogen compound having been discharged on that day, for such a liquid leaves its marks for some time after it has flowed into a sewer. I therefore dismiss this as the cause.

2nd. The mud of the Fleet sewer is remarkably free from uncombined sulphuretted hydrogen; indeed, the rapid flow of the sewage, at the rate of more than 5000 gallons a minute, would prevent such an accumulation; and if it had accumulated, as I have seen it in some of the worst of the city sewers, the proportion of sulphuretted hydrogen in the gas does not exceed 0·2 per cent. (that is as far as my observations and analyses have gone). The great bulk of the gas of stagnant sewage is marsh gas, which I have often fired in some of the worst sewers like a train of gunpowder, but I never suffered from sulphuretted hydrogen at such times. I do not think, therefore, that this is the cause.

The only remaining source of the sulphuretted hydrogen is the action of a mineral acid on the recently disturbed or exposed mud. On inquiry amongst the manufacturers and wholesale druggists, photographers, and manufacturing chemists of the neighbourhood, I could find only one case in which acid had been let into the sewer on the morning of the accident. This happened at Messrs. Tyler's, the founders and brass finishers, of Tyler's Market (the old College of Physicians), Newgate street. They are in the habit of letting off about 100 gallons of acid liquor called "sharps" every morning at about seven o'clock, and from the time (eight o'clock) at which the watch of one of the men stopped (by reason of his falling into the water when he became insensible) there is reason to believe that the discharge of the acid liquor coincided very nearly with the accident.

This acid liquor is the washing of the brass work after it has been steeped in nitric acid. I took a sample of the liquor at between twelve and one o'clock in the day, and found that it contained 0·5 per cent. of free acid. Even in this state it acted on sulphuret of iron, (the black constituent of sewer mud,) and evolved sulphuretted hydrogen; and no doubt by the end of the day, when much more acid had been washed into the liquor, it would have been much stronger. The Messrs. Tyler also informed me that about ten days ago they let off into the sewer about 100 gallons of spent acid liquor (dilute sulphuric acid) from the copper room.

There is some doubt about the course of the sewers from Messrs. Tyler's, and this must be cleared up; but if, as I suspect, their drains communicate in front with Warwick-lane and behind with the Fleet-lane sewer, the accident is clearly made out, for their drains would then be the means of connexion between the several sewers in which the rats and the unfortunate men were found.

I had samples of the sewage and the sewer air taken on the evening of the day of the accident, but analysis showed nothing peculiar. The sewage was precisely like that which I have before examined from the Fleet sewer; and the air contained, in the four samples, from 0·4 to 0·5 per cent. carbonic acid, from 19·9 to 20·1 per cent. oxygen, and but traces of sulphuretted hydrogen and ammonia. This is as nearly as possible the average composition of sewer air, as determined by me on former occasions.

If the accident has arisen from this cause, it shows the danger of discharging acid liquor into the sewers. I have

often spoken about it, and told manufacturers and others that mischief would some day come of it. The practice, however, is very common, as with bleachers, galvanisers, braziers, lacquerers, oil pressers, fat renderers, lithographers, and others. As in the case of gas liquor, the practice should be prohibited by Act of Parliament.

Finsbury-square, February 18th, 1861. HENRY LETHEBY.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Prooemium.

ST. MARY'S HOSPITAL.

LODGMENT OF A FARTHING IN THE ŒSOPHAGUS OF A YOUNG CHILD; EJECTION THROUGH THE INFLUENCE OF EMETICS.

(Under the care of Dr. HANDFIELD JONES.)

As a companion to the case in which a shilling was swallowed by a little boy, recorded in the "Mirror" of the 9th inst. (p. 137), we publish the following very remarkable instance of the impaction of a farthing in the upper part of the œsophagus of a child eighteen months old for the long period of three months. The symptoms were peculiar, and as very little food passed downwards the child became much emaciated. The presence of the farthing at the back of the larynx occasioned attacks of dyspnœa. It could not be felt by the finger, and its ejection was successfully accomplished by repeated emetics. Considering the period during which lodgment continued, it is somewhat singular that ulceration, abscess, or some more serious mischief had not ensued. Mr. Erichsen relates an instance in which a piece of gutta percha had remained lodged and undetected in the œsophagus of a man for upwards of six months. One day at dinner this patient suddenly vomited a large quantity of blood and fell down dead. The foreign body had formed a pouch for itself, and had ulcerated into some important bloodvessel. The subjoined case is uncommon, because a foreign body is generally readily detected in the throat of a child.

J. P——, aged eighteen months, female, was admitted Aug. 24th, 1860. Her mother reports that about twelve months ago the child nearly swallowed a farthing; for fourteen days after this feat she was weak and ailing, and then began to vomit and make a noise in her breathing. Her breath is sometimes very short; she gets dark in the face; has constant sickness; the food seems not to descend beyond a little way. Gets worse; is much emaciated; lips now of good colour; loud snoring noises all through both backs, which are fully resonant; jugulars not distended.

On examination of the throat two days later with the finger no foreign body could be felt. Emetics of sulphate of zinc night and morning were ordered. On the 28th the child had a severe paroxysm of dyspnœa, and appeared in great danger of suffocation. In the evening the mother gave her three consecutive doses of the emetic mixture. The first two had no effect, but after the last the child vomited up the farthing. It was shown to Dr. Jones the next day. The coin was much darkened, and had a distinct transverse line running across its middle; at first there was a substance "like liver" adhering to it. Since the ejection of the farthing the child has swallowed better. It is probable that the coin had lain during the long time that had elapsed from the date of its being swallowed in the lower part of the pharynx, just behind the entrance to the larynx. In this position it would obstruct permanently the descent of food into the œsophagus, and also might easily irritate at times the constrictor muscles of the glottis, so as to close the opening, and thus cause the paroxysms of dyspnœa. The transverse line on the coin was probably produced by the grip of the pharyngeal constrictors which held its lower part. The liver-like stuff about it was doubtless altered blood. It seems doubtful whether poking with forceps would have succeeded so well as the simple emetics.

LONDON HOSPITAL.

STRICTURE OF THE FEMALE URETHRA, CAUSED BY INJURY IN CHILDBIRTH; CURED BY DILATATION.

(Under the care of Mr. CURLING.)

STRICTURE of the female urethra is a very rare disease. This can be readily understood when it is remembered that this part of the female organism is not a primary seat of gonorrhœa, as in the male sex. The causes of stricture in the female are chiefly laceration and injury to which the canal is occasionally liable during parturition; the extension of inflammation from the vagina to the urethra, which may be gonorrhœal; and chancrous ulceration.

Independently of contractions, properly so called, Mr. Henry Thompson mentions the presence of excrescences at the external meatus as a not unfrequent cause of narrowing of the canal, and of extreme pain and difficulty in passing urine. Of all these causes, however, injuries received during parturition are the most common. A rare and interesting example of the kind we have the opportunity of placing upon record from notes taken by Mr. Gwynn, the dresser of the patient. That the stricture arose from injury received at childbirth was Mr. Curling's opinion; and the history of the case fully confirms it. Some years ago this gentleman had a similar case in the hospital, the stricture having originated in a contusion to which the urethra had been subjected in a protracted labour which had taken place twenty-eight years before. As an instrument could not be passed into the bladder, he was compelled to puncture that viscus in the direction of the canal beneath the pubes. The obstruction was situated an inch and a half from the external orifice. (A short account of this case is published in the fourth volume of the "Cyclopædia of Anatomy and Physiology," p. 1267.)

Mr. Thompson, in his work "On Stricture of the Urethra," refers to cases that have occurred to Mr. Earl, Sir B. Brodie, Mr. Curling, Dr. Blundell, and himself. The seat of the stricture varied. In two cases of Dr. Blundell, the entire canal was contracted from end to end. Sir Benjamin Brodie believes that it is always the anterior part of the canal which is affected. It is probable that the situation of the stricture will depend upon the cause producing it. Mr. Curling remarked, however, that as in the male the worst forms of stricture arise from external violence, so in those cases in the female the strictures are of a severe character.

We are astonished to find the subject of urethral stricture in the female unnoticed by almost every modern surgical writer, with the exception of Mr. Henry Thompson, who has devoted a chapter to its consideration in his work "On Stricture" generally.

Mary L——, aged thirty, married, was admitted on the 9th of October, 1860. This patient, a healthy-looking woman, with dark hair and eyes, but highly nervous and hysterical, states that when seventeen years old she strained herself whilst lifting a heavy weight. Half an hour afterwards, a swelling, which she described as resembling a "child's head" in size, came down, and protruded through the external labia, attended by great pain. Leeches were applied by a medical man, and several attempts made to reduce it without success. Her urine used to run under this tumour, causing pain in its passage. An operation was advised, and Mr. Hilton removed the tumour at his own house. Her left leg now became painful and swollen, and she gradually lost all sensation and motion in it. For this she was admitted into Guy's Hospital, was leeched and blistered in the left groin, and nitrate of silver applied to the uterus. Whilst in the hospital she was transferred to Dr. Lever, who continued the same treatment, and at the end of four months, after being cautioned not to get married, she was discharged cured. This advice she thought fit to disregard, and was married three years after leaving the hospital. When twenty-one years of age, she gave birth to her first child, after a very painful and protracted labour. No instruments were used. Her urine now began to cut and pain her in its passage, but she managed to get on very well for five years, until the

birth of her second child, after another hard and tedious labour, which greatly aggravated all her symptoms. A year and a half after, she positively states that she had complete retention for five days, which was at length relieved by medicine. No instrument was used. Her urine now caused her severe cutting pain, and was passed in a very fine stream, and she would sometimes go the whole day without passing it, rather than endure the pain. For the last ten months she has been under treatment by a medical man, who has made several attempts, but never succeeded in passing an instrument into the bladder.

On the 9th of October she was admitted into the hospital, but owing to the menstrual discharge being present no examination was made for a few days.

On the 13th she was examined, and found to have a very tight gristly stricture, about an inch from the external meatus. Mr. Curling succeeded, after a little difficulty, in passing first a No. 1, and afterwards a No. 2 male silver catheter. This was tied in until late at night, when it became so painful that it was withdrawn.

Oct. 14th.—The house-surgeon failed to get the catheter in.

16th.—Mr. Curling introduced No. 2 elastic catheter, and passed over it one of Wakley's elastic gum dilators cut short, in size about No. 4 or 5; tied in.

17th.—The small silver catheter belonging to Wakley's case was introduced, and No. 6 elastic gum dilator passed over it. This was repeated on the three following days, the catheter being tied in. On the 21st the house-surgeon failed to introduce it.

22nd.—No. 8 was introduced by Mr. Curling.

25th.—Patient complained of pain in the region of the bladder. Catheter taken out. To be introduced and kept in an hour every day.

27th.—She appeared to be ill; complained of pain in the left side, and a great deal of bearing down; urine a little cloudy from mucus. To have a warm bath, and twenty-five minims of tincture of opium. No instrument introduced to-day.

28th.—A little better. Bath repeated.

29th.—Seen by Mr. Curling. No instrument used. Urine contained a little mucus, but was acid. To have an effervescing ammoniacal mixture.

30th.—Mr. Curling introduced the catheter, and ordered it to be passed every day and kept in an hour.

Nov. 1st.—No. 11 passed: this was continued every day.

5th.—Has pains in her side and back. Spongio-piline ordered.

6th.—She is better.

13th.—Poorly. No instrument used.

16th.—Instrument passed every day; urine clear.

25th.—Had a slight attack of rheumatic fever. Ordered milk and beef-tea; and a bicarbonate of potash mixture.

26th.—Knees swollen; she is a little better.

28th.—Better.

30th.—Passed a small elastic catheter for herself, after a great deal of persuasion.

On Dec. 3rd she passed a No. 7 elastic catheter for herself, since which time the house-surgeon has not been able to induce her to pass it. She is exceedingly nervous, crying a great part of the day.

6th.—Her urine is now almost normal, but she still complains of a little pain and difficulty in passing it. There is no impediment to the passage of a large-sized catheter.

20th.—Discharged, cured, with instructions to have a No. 10 bougie passed occasionally.

GUY'S HOSPITAL.

STRANGULATED UMBILICAL HERNIA IN AN AGED FEMALE; OPERATION AND REDUCTION WITHOUT OPENING THE SAC; RECOVERY.

(Under the care of Mr. THOMAS BRYANT.)

THE interest of the following case consists principally in its successful termination. The age of the patient, the period of strangulation, the nature and large size of the hernia, are points which militated much against the success of the operation, especially when it is remembered that operations on umbilical hernia are, as a rule, most fatal. Mr. Bryant attributes the favourable result to the fact that the sac was not opened sufficiently to expose any portion of the intestine, nor to allow the surface of strangulated bowel to be manipulated. This point is of great importance, and is one which should be remembered and acted on in future cases.

In former "Mirrors" we have recorded several successful cases of strangulated umbilical hernia. One, under the care of Mr. Lawson at the Western General Dispensary, was a woman, in whom the intestine was so adherent to the sac that it could not be returned (THE LANCET, vol. i., 1858, p. 190); another, under Mr. Stanley at St. Bartholomew's Hospital, also a female, in whom it was necessary to remove a protruded omentum (ibid., vol. ii., 1858, p. 575); a third case, under Mr. Heath at St. George's Dispensary, in which the sac and adherent omentum were removed with success (ibid., vol. i., 1859, p. 341); and a fourth case, under Mr. Prescott Hewett at St. George's Hospital (ibid., vol. ii., 1859, p. 338).

The notes of the following case were taken by Mr. Pembroke R. J. B. Minns, clinical clerk:—

Jane W——, aged seventy-four, married, was admitted into Dorcas ward on the 5th of December, 1860, with a strangulated umbilical hernia. She states that she has had the hernia for the last four years, but was always able easily to reduce it whenever it came down, although the mere fact of its descent would cause attacks of vomiting. She was in the habit of wearing a truss, which she took off before going to bed at night, and replaced in the morning, but on the 1st of December she found that she was unable as usual to return the hernia, which soon became painful. Hot fomentations were applied, but found to be of no avail. On the 2nd of December she began to vomit, and the tumour was somewhat enlarged. She allowed the hernia to remain in this state until the 4th, when she sent for her medical man, who ordered her an injection of gruel, which operated slightly, but gave no relief. He then applied the taxis for fifteen minutes, but finding that of no avail, advised her to go to the hospital. When admitted she vomiting was stercoraceous, and the tumour about the size of a man's fist, painful and tender to the touch. An attempt to reduce it failed. She was ordered to have ice applied to the hernia, and two grains of opium immediately. At half-past two A.M. she was placed under the influence of chloroform, and the taxis again applied; but proving of no use, she was immediately operated upon, and the bowel returned without opening the sac except at its neck, where the stricture was divided. The wound having been closed in the usual manner, she was ordered one grain of opium every three hours, and ice to be taken internally to alleviate sickness. The diet consisted of arrowroot and milk.

On the 7th, the pills were ordered to be taken three times a day; but at ten P.M., the abdomen being tender, she was ordered to take them every four hours.

On the 8th, her bowels were opened for the first time. She was ordered four ounces of brandy, and the pill every six hours.

On the 19th, she was looking as well as could be expected, although she complained of cough. Ordered six ounces of wine.

On the 20th, her cough still troubling her, she was ordered compound conium mixture three times a day, and a flannel bandage to be placed around her abdomen.

Jan. 12th, 1861.—The wound was very nearly healed, but her cough continuing, she was ordered ipecacuan wine in compound infusion of cascarilla thrice a day.

On the 15th, a truss having been applied, she was discharged well.

GREAT NORTHERN HOSPITAL.

EXTENSIVE INJURIES FROM THE EXPLOSION OF A LOCOMOTIVE ENGINE.

(Under the care of Mr. LAWSON.)

THE following case is an illustration of what an amount of injury a man may sustain without life being destroyed. The points of interest are—first, the peculiar mental condition of the patient for some time after the accident; and, secondly, the effect which this condition appears to have exerted over the reparative process. Brought into the hospital in a state of coma, in about twelve hours he somewhat rallied, and passed into that of traumatic delirium. Slowly, under the influence of opium, brandy, and a good diet, he gradually became tranquil; but his memory was for a time lost, nor did he recover it until after he had been five weeks in the hospital. Up to this date no reparative process had taken place between the broken extremities of the bones; but with the return of the mental faculties there was increased action in the site of the fractures, and a firm union was speedily effected between

the ends of the femur; and it is to be hoped that a similar result will be shortly accomplished in the humerus.

J. C——, aged thirty-three, was admitted on Nov. 1st, 1860, having been just blown up by the explosion of the locomotive engine at the entrance of the underground railway, close to its junction with the Great Northern Railway. At the time of the accident he was with his two companions at work on the engine. They were killed instantaneously, but he was picked up some yards from the engine in an insensible state.

On admission, he was perfectly insensible, and breathing stertorously. A large scalp wound of about six inches extended from before backwards towards the occiput. He had a fracture of the middle third of the left humerus, and a fracture of the right thigh. He had also a deep scald over the right hip, extending up to the seat of the fracture of the femur, while on the left side there was a deep lacerated wound of the thigh, near the great trochanter. His bladder and bowels acted involuntarily.

The patient having been placed in bed, his numerous wounds were immediately attended to. The large scalp wound was united by wire sutures, and covered with a firm compress of lint and a bandage. His arm was put up in the ordinary splints; but a difficulty existed in arranging the splints for the thigh, as the extensive scald on the outer side of the limb prevented the application of a long continuous splint, and the involuntary action of his bladder and bowels would not allow of the use of a perineal band. Accordingly a long splint, with an interruption of an arch of iron bar thrown over the site of the scald, was applied from the axilla to beyond the foot, and Mr. Wallis, the house-surgeon, maintained the extension of the limb by attaching a long strip of adhesive plaster from the knee to the foot, and appending thereto a bag of sand of fifteen pounds weight, which hung free over the end of the bed. From the state of coma in which he was on his admission, the man in about twelve hours passed into a wildly delirious state, endeavouring to tear off his bandages and to get out of bed, talking all the while most incoherently. A brisk purgative was given, and after it had well acted he had ten minims of tincture of opium every four hours; a liberal diet of beef-tea, arrowroot, and four ounces of brandy daily. Under this treatment he gradually improved, and in four or five days he became perfectly quiet, and began to recognise his attendants, and to regain power of control over his bladder and rectum. Unfortunately, however, bed-sores were now forming on his back, and a diffuse erysipelatous inflammation involved the whole of the left thigh.

On Nov. 12th he was placed on a water-bed, and on the 16th about a pint of pus was let out of the left thigh by a small incision on the inner side near the knee. Although now perfectly tranquil and capable of understanding questions, he has complete loss of memory. He believes that to within the last few hours he was at work; and when asked how he was engaged, he would describe the scene of his employment at the time of the accident. Even when asked in the afternoon what he had for dinner on that day, he would tell of a dinner his wife had carried to him when at work on the railroad. Gradually, however, his mental condition improved, and at the expiration of five weeks he was capable of appreciating the fact of his being in the hospital and of the cause which brought him there. The scald had progressed up to this time most favourably, and in every respect he was apparently doing well, the wound of the scalp having perfectly healed.

As the bandages were now becoming loose, they were taken off for the purpose of readjusting them and of examining the fractures. In the thigh and in the arm but little reparative process had taken place; there was slight thickening in the seat of the fractures, but the broken extremities moved freely on one another. The limbs were therefore readjusted in their splints.

Thirteen weeks after the accident the splints were again removed. The fractured femur had firmly joined, but the humerus still continued disunited, although there was considerable thickening and some firm effusion in the immediate neighbourhood of the fracture.

He continued to progress in a most satisfactory manner until Feb. 7th, when some swelling of the lower extremities began to manifest itself, accompanied with puffiness of the face. The urine is now albuminous and smoky, but his general condition is not very unfavourable.

JUNIOR MEDICAL SOCIETY OF LONDON.—We are glad to learn that a general adhesion has been given to the proposed formation of this Society. The delegates from the local hospital societies of all the metropolitan hospitals will meet this evening (Saturday) for the purpose of founding the Society and arranging its constitution.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, FEB. 12TH, 1861.

MR. SKEY, F.R.S., PRESIDENT, IN THE CHAIR.

CONTRIBUTIONS TO THE SUBJECT OF COMPOUND FRACTURE: BEING AN ANALYSIS OF 302 CASES.

BY THOS. BRYANT, F.R.C.S.,
ASSISTANT-SURGEON, ETC., AT GUY'S HOSPITAL.

HAVING recognised the fact that the science of medicine and surgery was one purely of observation, and that its principles and practice could only be regarded as sound so long as they were based on facts, the result of recorded and carefully observed phenomena, the author went on to state that he believed it to be the duty of every practitioner to communicate to his professional brethren any positive material he may possess, and thus to add his quota in building up the noble art and science to which we have the honour to belong. In conformity with such a principle he had the pleasure of presenting to the Society a brief analysis of upwards of 300 cases of compound fracture of the extremities, omitting only those minor examples in which the smaller bones of the hands and feet were involved, believing that the results educed were not unfruitful either of interest or instruction. The cases were all taken from the experience of Guy's Hospital within the last twenty years, the earlier ones having been collected from the records of the institution, and the author's own notes having furnished him with the particulars of every case admitted within its walls during the last seven years.

He then proceeded to the analysis of the whole number—302 cases:—

17 or	5·6	per cent.	were of the thigh
193 or	63·9	,,	,, leg
35 or	11·5	,,	,, arm
57 or	18·8	,,	,, forearm

11 out of the 17 cases of compound fracture of the thigh proved fatal, or 64·7 per cent.

74 out of 193 examples of compound fracture of the leg were fatal, or 38·3 per cent.

4 out of the 35 cases of compound fracture of the arm died, or 11·4 per cent. And

7 or 11·2 per cent. of the 57 cases of compound fracture of the forearm.

Of the whole number of 302 cases, 96 were fatal, or 31·7 per cent.

A table then followed showing the causes of death in these 96 cases, from which it appeared that in cases subjected to amputation pyæmia was twice as fatal as in others treated on conservative principles, and that exhaustion and gangrene were more common causes of death; that in cases treated on ordinary surgical conservative principles delirium tremens and tetanus were more common causes of a fatal result.

Analyzing the 17 examples of compound fracture of the thigh,—

9 underwent primary amputation; 6 died, and 3 recovered.

1 underwent secondary amputation; fatal.

7 were treated on conservative principles; 4 died, and 3 recovered.

10 were thus treated by amputation, and 7 of these died, or 70 per cent. 7 were left to nature's efforts for repair, and of these 4 died, or 57 per cent.

Having given an outline of the fatal cases, the author went on to remark, first, *on the rarity of compound fracture of the thigh*, the accident bearing the proportion only of 5·6 per cent. to other cases involving the larger bones of the extremities. This fact, he stated, was well borne out by the experience of all surgeons.

The *excessive mortality of these cases* was the second point to which he alluded, 64 per cent. of the whole number of cases proving fatal. In nearly 60 per cent. amputation was had recourse to, and 70 per cent. of these cases subsequently sank. The extreme severity of the majority of these cases, he remarked, rendered primary amputation absolutely essential. He showed that more than half the examples died, or 57 per cent., in which attempts had been made to save the limb; and that the cases in which recovery had taken place were in young and healthy subjects.

The author passed on to review the opinions of some military surgeons on the subject, and pointed out how Dupuytren, Hen-

nen, Larrey, Guthrie, and others all agreed that in compound fracture of the thigh from gun-shot wounds, "in rejecting amputation, we lose more lives than we save limbs;" and also "that in the exceptional cases, which result in consolidation, the condition of the limb is not encouraging." He quoted Macleod's Crimean experience as indicating the same opinion, this surgeon advising amputation in all such cases when taking place in the middle and lower third of the thigh, and hesitating only in a like recommendation in cases of fracture of the upper third, on account of the extreme mortality of such amputations. Malgaigne's and Bauden's experience was then quoted to prove the poor success of conservative treatment in these injuries, the latter surgeon saving only 2 out of 25 cases, and these two retained useless and deformed limbs.

The author then went on to say that the experience of civil surgeons was not unlike that of their military brethren, although it was much more limited; and expressed an opinion, which he believed to be generally entertained, that a satisfactory result can rarely be obtained by conservative treatment, except in the most favourable cases,—that is, when the subjects are young and the fracture uncomplicated; when the soft parts are not materially damaged nor the bone comminuted. When the bone was comminuted and the soft parts seriously involved (such a condition being generally produced by local mechanical violence), he believed that a satisfactory termination of the case must be regarded with doubt. If the patient should be old or unhealthy, amputation should be at once performed; and if there should be a doubt as to which line of treatment to adopt, the safest is to decide on amputation. But if the subject should be a young and healthy one, and not subjected to injurious hygienic influences, the author believed that a satisfactory termination might be obtained by removing at once the broken and disconnected fragments of bone (enlarging the wound if necessary), and by maintaining the absolute repose which is so essential. He stated that he believed it to be bad practice to leave the broken fragments in position, with the hope of union; and that by doing so we left a constant source of irritation, which must retard the local process of repair, as well as seriously weaken the powers of the patient, a subsequent operation being almost necessarily required to remove what will become necrosed bone.

Analysis of the 193 *cases of compound fracture of the leg.*

The author commenced by stating that these numbers included fractures of the tibia, and tibia and fibula combined, the latter being the most numerous. Compound fracture of the fibula was comparatively a rare accident.

129 were treated on conservative principles, 35 of which died, or 27·13 per cent.

32 underwent primary amputation of the leg, 19 of which died, or 59·37 per cent.

11 underwent primary amputation of the thigh, 6 of which died, or 55·55 per cent.

15 underwent secondary amputation of the leg, 10 of which died, or 66·66 per cent.

6 underwent secondary amputation of the thigh, 4 of which died, or 66·66 per cent.

74 of the whole number died, or 38·34 per cent.,—27·13 per cent. of those dying which were treated on conservative principles, and 60·9 per cent. of those treated by operative interference.

In 22 per cent. primary amputation was performed; in 10 secondary; and in 67 per cent. conservative treatment was adopted.

A table was then given, showing the causes of death in the fatal examples, from which it appeared—

That of the fatal cases operated on, about one-third died from pyæmia, and nearly two-thirds from exhaustion or gangrene.

That of the cases treated on conservative principles, not one-sixth die from pyæmia, and something less than half from exhaustion and gangrene,—pyæmia being evidently a more common cause of death after operation.

The author then went on to observe, that no comparison can be well drawn between the two classes of cases in which conservative treatment and operative interference had been applied. In compound fracture of the leg, he believed that the injury should be very extensive to warrant such a practice as amputation; for most cases, whether treated by primary or secondary amputation, prove fatal to about sixty per cent.; and when attempts to save the limb are carried out, by care and close attention good results may be anticipated.

Let a free exit be made and kept up for the evacuation of all pus; let loose pieces of bone be removed *as early as possible;* and let the limb be preserved in absolute repose by any splints which will secure such an end. Let the tendo-Achillis be divided if the slightest difficulty is experienced in maintaining rest, and good support and nourishment freely given. Under such treatment, apparently hopeless cases often turn out well, and reward the surgeon's attention by a successful result.

The author then dwelt at some little length upon the necessity of making free incisions whenever pus was present; it was a practice which he had never seen followed by any other than good results, and strongly advocated its adoption in appropriate instances.

Analysis of the 35 *cases of compound fracture of the arm.*

14 were treated on conservative principles, and all recovered.

4 were treated by primary amputation at the shoulder-joint, 2 of which died from internal complications.

13 were treated by primary amputation of the arm, and 2 died.

4 were treated by secondary amputation, and recovered.

31 of the whole number recovered, and 4 died, or 11·4 per cent.

Analysis of the 57 *cases of compound fracture of the bones of the forearm.*

27 were treated on conservative principles, and all recovered.

22 were treated by primary amputation of forearm; 2 died, or 9 per cent.

5 were treated by secondary amputation—4 of forearm, 1 died; 1 of arm, fatal.

3 died from internal complications.

The author then drew attention to the fact of the favourable termination of these last two classes of cases, which the experience of all surgeons correctly indicated. He stated that such an operation as amputation should be resorted to only in the severest examples, and that in more favourable cases a good recovery might with some confidence be anticipated. He drew attention to the fact that so large a proportion as about 50 per cent. of the cases of compound fracture of the forearm admitted into Guy's Hospital were subjected to amputation, and explained it by proving that the majority of the cases were caused by machinery, which was too often followed by a total destruction of the part.

The author concluded by expressing a hope that the analysis was of some value and interest, although he was well aware that few general deductions could be drawn, as there were no cases in surgery which required to be treated more upon their individual peculiarities than those of compound fracture.

Mr. SKEY said it would have been interesting to learn from the author the relative success of the treatment resorted to in the earlier cases with that of those treated more recently. The treatment of compound fracture had been very different at different times, and it would have been interesting to know what kind of treatment had been most successful. The local applications were now much better than formerly.

Mr. CURLING complimented the author on the interest which he had given to his paper, in which many particulars of much value had been embodied. But the author had not distinguished between single and double compound fracture, such as was often seen in cases of fractured tibia; neither had he noticed cases of compound fracture of the ankle-joint—how they were treated, or with what success. He (Mr. Curling) should have been glad to know also in what way the different cases of fracture had been produced; whether, for instance, by the wheels of a cart passing over the limb, &c.; or whether the fractured bone had simply passed through the soft parts. The severity, danger, and result of a case depended much on the mode in which the injury was inflicted.

Mr. SKEY inquired what the author meant by "secondary amputation"?—what was the limit of time between the operations?

Mr. BRYANT would have been glad to have given the information required, but he found the facts placed at his disposal did not enable him to do more than he had done with such completeness as was desirable in an analytical paper. He might refer hereafter both to the relative success of the past and present treatment of compound fractures, and to fractures into joints.

Mr. CURLING referred to the circumstance that the results of compound fractures varied materially in different years and at different seasons; in some the cases being nearly all favourable, in others the contrary. He referred also to the fact that when the foundation of one of the wings of the London Hospital had given way, and in its reconstruction a number of bones were removed, cases of compound fracture and amputation were

generally fatal on that side of the hospital, whilst on the other side of the building there was no unusual mortality.

Mr. SKEY alluded to the bad condition and difficulty of treating compound fractures in very hot weather.

Mr. BRYANT said that the fact mentioned by Mr. Curling of great mortality following the exhumation of bones at the London Hospital was an accidental circumstance, and had no relation to season or weather.

ON THE CAUSES OF TRUE LEPROSY.

BY W. E. C. NOURSE, F.R.C.S.,
ASSISTANT-SURGEON TO ST. MARY'S HOSPITAL, BRIGHTON.

The author, having seen this disease at Bergen and elsewhere, first adverted to the well-known fact that leprosy was a blood disease, or dyscrasia; that an altered condition of the blood, demonstrable by chemical analysis, accompanied the premonitory symptoms which preceded every fresh appearance of leprous blotches, both in the tubercular and in the anæsthetic form of leprosy, the blood at such times containing excess of albumen and fibrin; and that when the blotches were fully developed, the blood was found to be restored to its usual condition. Since, then, a changed condition of the blood was the proximate cause of leprosy, it was natural to look to the well-known agents concerned in making blood for the next link in the chain of causes of the disease. And here there was abundant evidence. Leprosy was frequent in Iceland, where the people inhabited small, close, dimly-lighted huts; were dirty in their personal habits; breathed a moist marine atmosphere; often had their garments wet; and lived on inferior food, badly cured. In Norway, where the food was inferior and too long kept, leprosy occurred; and on part of the west coast, where the food was unusually bad—where the people inhabited small, dirty, unventilated huts in damp and cold situations, and often had their garments drenched with rain or salt water—leprosy was peculiarly frequent. During the middle ages, when population had become too numerous to be sustained by the produce of the chase, and before the art of producing large supplies of good food was understood, leprosy had been common in all parts of Europe; and it had disappeared precisely as more copious and better supplies of fresh meat, vegetables, and bread were produced. It had then vanished first from England, then from Ireland and Scotland, and more recently from the Isles. On the Continent it had followed a similar rule, and the disease now only remained in particular maritime situations, where the standard of living was miserably low, the habits of the people dirty, and their dwellings small, dark, and ill-ventilated. The author believed that these conditions would always be found to coexist with it, and that it would be endemic wherever they obtained, irrespective of latitude. In Egypt, cases of leprosy were occasionally seen; and some of the Egyptians lived in a miserable squalid manner, and in small dirty huts. In Palestine, lepers were still found amongst the very poor, distinguished by want and dirt. Dr. Webster's account of the leprosy in Spain was precisely to the same effect, and he had shown that it prevailed in damp maritime districts, amongst people living in a poor miserable way, on bad and decaying food, and in close dirty huts. Mr. Nourse dwelt on these circumstances as the main causes originating the disease, and concluded by expressing his belief in its hereditary transmission.

Dr. WEBSTER felt gratified that the author's opinions respecting leprosy and its etiology so fully coincided with those he had stated last year, when his own paper on the Leper Hospital at Granada was read to this Society, the only point of difference being in reference to the hereditary nature of the disease. But even on that question several arguments now adduced were not conclusive. For example, it was said, if he rightly understood what had been read, the malady would sometimes pass over one generation, and then affect collaterals. Still it ought to be remembered that where leprosy occurred in particular families, all were usually placed under very similar local influences, suffered the same privations, and were exposed to analogous causes. Therefore he (Dr. Webster) did not believe hereditary tendency acted so powerfully as had been generally assumed by Norwegian physicians. They seemed to think leprosy was also more common in their country at present than during the early part of the current century, which was likewise asserted by some Spanish authorities. Since his (Dr. Webster's) paper was published, he had heard the disease prevailed on the Portuguese coast near Lisbon, in which capital a Leper Hospital existed, having usually upwards of fifty inmates, of whom the large majority, nearly three to one, were male patients. On the coast of Brazil it was likewise common, and men there fell oftenest victims. Besides, he would remark that Dr. Lauder Lindsay, of Perth, who lately visited Iceland, says, in a communication to himself, "this complaint now exists in the island to a considerable extent." Moreover, he might further add that last autumn, when again making a holiday tour in Spain and the south of France, his own inquiries led to the belief of leprosy being more prevalent than previously supposed. Indeed he (Dr. Webster) had observed a peasant in the market-place of Bordeaux, who exhibited identical symptoms to those noticed at the Granada Leper Hospital. The speaker also agreed in the remark that this affection now occurred exclusively amongst the lower grades of society, and those suffering poverty or destitution. Such opinions were true at the present time; but during the middle ages it happened quite otherwise, since the highest ranks, and even royalty, were sometimes attacked. Thus, in addition to the death of Robert the Bruce, King of Scotland, by leprosy, and alluded to in his (Dr. Webster's) paper in the "Transactions," he might mention that of Alonso, an Arragonese sovereign, who died in 1284 by the same noisome disease.

Dr. HARE, in reference to the hereditary character of the disease, mentioned that the children of deaf and dumb parents were rarely deaf mutes; but deaf and dumb persons were found in the collateral branches of the family. Leprosy in this way might be also hereditary.

ANALYSIS OF 82 CASES OF EPILEPSY OBSERVED BY THE AUTHOR.

(SECOND SERIES.)

BY EDWARD H. SIEVEKING, M.D.

This was a second contribution of the same character as the one admitted into the "Transactions" of the Society for 1857, and the author has limited the analysis to the same number of cases, taken in the order of observation, as had been subjected to analysis on the former occasion. Only those points were brought forward on which satisfactory evidence could be obtained.

Sex.—23 were females, or 44·2 per cent. 29 were males, or 55·8 per cent. Taking the two series together, the ratio of females to males was as 45·2 to 54·8.

Age.—The following was the distribution throughout the different periods of life:—Under 10 years, 12 cases; from 11 to 20, 25 cases; from 21 to 30, 7 cases; from 31 to 40, 3 cases; from 41 to 50, 2 cases; above 51, 3 cases. The basis of this calculation is the time at which the epilepsy first showed itself. Arranged according to sex, we find during the first decennium 8 males and 4 females; during the second, 11 males and 14 females; during the third, 5 males and 2 females; during the fourth, 3 males; during the fifth, 1 male and 1 female; during the sixth, 1 male and 2 females.

Causes.—An hereditary taint was traceable in 14 cases, but in 8 only of these was there evidence of epilepsy having occurred in a near relative of the patient.

The exciting causes were traced in 37 cases as follows:—Uterine derangement, 9 cases; venereal excesses, including masturbation, 6 cases; fright, 4 cases; over-work, 4 cases; anxiety, 3 cases; dyspepsia, 3 cases; dentition, 2 cases; scarlet-fever poison, 2 cases (doubtful); meningitis, anæmia, blood-poison, and the development of puberty, each 1 case.

Premonitory symptoms.—Comprising under the term "aura" all symptoms indicative of a near approach of a paroxysm, the author found it in 21 cases, or 40 per cent., or less frequently than it was met with in the first series, where 52 per cent. of the cases exhibited premonitory signs.

Headache.—Headache is very commonly associated with epilepsy, but its significance varies much according to its period of occurrence; it may be habitual, or it may be connected with the attacks only as a precursor or a sequela. It was constant or frequent in 9 cases, 17·3 per cent.; it occurred after the seizures only in 12 cases, or 23·0 per cent.; it occurred only immediately before or after the fits in 3 cases, or 5·7 per cent.

Biting the tongue.—Although a large number of genuine cases of epilepsy occur in which this symptom is never met with, it is important as a corroborative symptom. In the first series it was met with only in 32·7 per cent.; in the present, 28 patients, or 43·8 per cent., exhibited this feature. It did not appear that the female sex, as might have been anticipated, were less prone to inflicting this injury upon themselves than males; because of the 24 cases in which the tongue had not been bitten, 16 were males and 8 females.

Urine.—The author has found no constant derangement in the urine associated with epilepsy. He has always failed to discover any sugar, nor has he met with a constant or even frequent excess of phosphates, or a diminution of urea. In

several cases he found the urine presenting a specific gravity ranging about 1030, and containing a large excess of urea. There was in the present series no case of albuminuria, except, perhaps, in one instance, in which a small quantity of albumen appeared to be present for a brief period. An excess of phosphates was observed twice, oxalates in one or two cases, and an excessive deposit of lithates in a small number of cases.

Treatment.—The author, while urging the value of treatment in alleviating the disease and indefinitely postponing the seizures in a large number of cases, admitted the doubt which always attached to any absolute cure of epilepsy. He advocated no specific, but the employment of all rational means indicated by the constitution and peculiar symptoms of each individual case. Above all, he considered perseverance in a combination of moral, regiminal, and medical treatment essential. As many of the cases analyzed had not been under the author's care permanently, he did not regard the results as to treatment indicative of what might have been effected in the whole series. He considered that he could lay claim to 8 cures, that 15 were decidedly benefited, while the remainder were either uninfluenced by treatment or did not continue under observation for a sufficient period to justify any positive statement as to the result.

Dr. E. SMITH wished to know how the urine was examined. Unless all that was passed in the twenty-four hours were submitted to examination, no dependence could be placed on the analysis as to the quantity of salts passed.

Dr. WEBSTER said the author seemed to have omitted one influential cause of epilepsy—viz., secret vice, which frequently produced that complaint, especially in warm countries. Doubtless, sexual excesses were also much to blame; still what he now mentioned oftener became operative than some others might perhaps believe. This occurred in cases of lunacy, which so commonly accompanied epilepsy. Further, climate and season likewise exerted no small influence upon this malady; while he would state it was more rare, speaking comparatively, in the northern than in the southern regions of Europe, being the very reverse of insanity. Throughout Sweden and north Germany, lunacy much oftener prevailed than in Spain or Italy. But epilepsy was far less rife in the former kingdoms or in Scotland, if contrasted with the warmer provinces just named, or even the south of France; whereas he could confidently assert that an observer will always find the ratio of mental aberration amongst a population diminish according as he proceeds southwards. These general conclusions Dr. Webster deduced from personal inquiries when visiting various lunatic asylums of the districts designated, and it would be satisfactory to learn whether Dr. Sieveking's experience was analogous.

Dr. R. REYNOLDS complained that the author had not given any definite account of the symptoms in the different cases which he had presented to the Society. Several forms of disease, he believed, had been classed together as epilepsy.

Dr. BARCLAY said that Dr. Sieveking would have been present, but had been informed his paper would not be read, and had left the Society. He begged to state that Dr. Sieveking had included only cases of true epilepsy in the series before the Society.

HARVEIAN SOCIETY.

THURSDAY, FEB. 7TH.

DR. SIEVEKING, PRESIDENT.

MR. WEEDEN COOKE exhibited the bones of the knee-joint of a young woman upon whom he had recently performed amputation of the thigh. Both the semilunar cartilages were gone, as well as the crucial ligaments; the ends of the bones had also lost nearly the whole of the periosteum. It was a case of rheumatic arthritis in a scrofulous subject. Mr. Cooke had been anxious to perform excision of the joint; but owing to the rapid progress of the case, and the supervention of pyæmic symptoms, he did not think this operation would have given the patient the best chance of restoration. In performing the amputation, he adopted a modification of Teale's plan, from which he had seen some excellent results in the Royal Infirmary at Edinburgh, under the care of Mr. Spence. He (Mr. Cooke) made a long anterior flap sufficient to turn over and cover the bone, and no posterior flap; the integuments and muscles posteriorly being divided flush with the section of the bone. The long anterior flap was brought over the bone, and united with the integuments posteriorly by means of silver sutures, thus forming a nice cushion for the bone. The great advantage of this mode of operating was, that the purulent discharge could not collect, but ran out as the stump lies on the pillow. Although the heart and lungs in this case were considered by Dr. Cockle, the physician to the hospital, to be in an unhealthy state, chloroform was nevertheless administered at the request of the patient, and no ill effects were produced.

Dr. POLLOCK then read a paper on

WHAT WE KNOW OF PHTHISIS REGARDING ITS CURE.

The author first spoke of the various stages of phthisis, which disease he did not regard as necessarily making a steady progress to decay, but frequently exhibiting a succession of attacks, and susceptible of local repair. Such cases he had seen, the system sometimes opposing itself to morbid action in so marked a manner as to cause very considerable prolongation of life. Regarding the cure of phthisis, Dr. Pollock said he had no specific to offer, and thought that no cure in the popular sense would be discovered. He was of opinion that the average duration of life since the use of cod-liver oil, as stated by some authorities at four years, was too low an estimate. Tubercle, it was said, might be absorbed, leaving the lung sound by excavation and cicatrization, or a cavity sometimes remains circumscribed, the patient living for years. Waste of tissue might be retarded by stimulants.

Several photographs of patients when first going under treatment, and those taken at long intervals of time, were exhibited to the Society, which last gave evidence of favourable results.

Dr. Camps, Dr. Fuller, Dr. Wadham, the President, and other members took part in the discussion, after which the Society adjourned.

Reviews and Notices of Books.

The Forms, Complications, Causes, Prevention, and Treatment of Consumption and Bronchitis; comprising also, the Causes and Prevention of Scrofula. By JAMES COPLAND, M.D., F.R.S., &c. pp. 440. London: Longmans.

THE first and major portion of the present treatise consists of a revised and enlarged version of the article on "Pulmonary Consumption" which appeared in the third volume of the author's well-known "Dictionary of Practical Medicine." This is followed by some remarks upon "Laryngeal Consumption," which form an improved copy of those previously published in the same Dictionary. The third portion of the book, or that which treats of "Bronchitis," may be viewed as nearly original. The article upon this subject in the work referred to, was written as far back as 1831; the author has, therefore, written it anew, giving the results of a larger and more extensive experience. Of all that relates to everything but the physical diagnosis—i. e., auscultation and percussion,—of the diseases treated of, the inquirer will find most ample, varied, and interesting illustration in these pages. But as regards the auscultatory signs of the maladies in question, the information given is not in the same proportion. We very much doubt the wisdom which prompted to this separate issue of literary joinery apart from the general structure, of which it formed a not unimportant item. It is true, additions have been made to it, and we are assured that although modern pathological and diagnostic progress has furnished us with aids, yet

"Equal advantages to these were formerly obtained from close observation of the history and the existing state of individual cases, and from a due recognition of the effects of medicines—from a rational and an enlightened experience."

We question, however, whether either the revision these Dictionary articles have here undergone, or the sometimes doubtful practical utility of the auscultatory refinement of other writers, will appear a sufficient reason to most people for the reperusal of these more than 400 pages. If we had not already the "Dictionary of Practical Medicine," we should have welcomed this book as a useful storehouse of much interesting matter to which it might be useful occasionally to refer. As it is, we have found it—*de trop;* but, nevertheless, we fully admit the right of a learned veteran in medicine to caution, and recaution if he thinks it necessary, the go-ahead

Young Medicine of the day. Dr. Copland gives it as his opinion,—and it is one well worth listening to,—that

"During the last half-century physicians have had their minds preoccupied, and their attention carried away, by the recognition of changes of structure and of palpable organic alterations, from a due estimation of those conditions of vital force, of vascular action, and of the circulating fluids which constitute the essential principles of disease, which chiefly engaged the deepest consideration of their predecessors, and which guided them to the adoption of appropriate indications and means of cure, and to practical results at least as successful as those achieved by the modern pathologist."—Preface.

Let us hear the author also upon two modern innovations in respect to phthisis—viz., Hospitals for Consumption, and Respirators. Of the former he writes:—

"According to the above statements, hospitals for consumption must appear of at least very doubtful benefit to the community as respects both the patients received into them and the advancement of medical knowledge, the above statistics being the only information as yet afforded by them. It may be admitted, however, that as regards the most wretched of the lowest classes of the community, though the duration of life may not be prolonged by hospitals, the comforts enjoyed in the last remnants of existence may be increased in them. But is the majority of patients admitted belonging to the most wretched of the lowest classes? If it be not the great majority, then the great object of these charities is not obtained, but is misplaced. If the public have expected, as it has been repeatedly told, and most delusively promised, that the knowledge of the nature and treatment of pulmonary consumption is to be advanced by these institutions, this expectation has not been as yet realized, and from every consideration of the physical and vital constitution of man is not ever likely to be realized. But this specious parade of the advantages of special institutions for the treatment of special disease, as well as the special study and practice of disease, is one of the most important delusions of the age; is founded chiefly upon the mechanical, manufacturing, and commercial spirit of the times; and is unsupported by scientific views, by reliable facts, by sound arguments, and by enlightened experience."—p. 117.

With respect to the second matter, it is observed:—

"A mechanical contrivance or instrument, termed a 'respirator,' has been recommended and adopted by many, in order to raise and equalize the temperature of the inspired air, especially when exposed to a cold, raw, or dry atmosphere, or to the cold morning or evening air. It is worn over the mouth, and sometimes over the nostrils also. It is probably of service when thus temporarily employed. But I believe that it is not productive of any marked benefit when worn for any considerable or long period, owing chiefly to the circumstance of its greatly increasing the humidity as well as the warmth of the inspired air. Owing to these effects, it may even be injurious in some cases, and may favour the development and softening of tubercles, especially in lymphatic and scrofalous constitutions."—p. 312.

Such are the energy and literary industry of our chief historian of medical practice, that we should not be surprised to hear of other revisions of portions of his great "Dictionary" than those of the subjects of Apoplexy and Paralysis (previously published), and of the topics discussed in the present volume, hereafter making their appearance. When we consider that thirty years have elapsed since the first part of the "Dictionary of Practical Medicine" was published, we can scarcely wonder at the author being a little dissatisfied with some of his articles, notwithstanding his poor opinion of the benefits derived from the scientific medicine of the last half-century. The latter, however, can justly demand to be informed how it is that, if such little real progress has been made, there should be a necessity for these elaborate revisions?

VACCINATION: THE COLLEGE OF SURGEONS AND THE PRIVY COUNCIL.

To the Editor of THE LANCET.

SIR,—As, when a few months ago very stringent regulations were issued by the Committee of the Privy Council as to the obtaining certificates of proficiency in vaccination, much surprise was excited in the minds of medical men at the sanction of such exclusive regulations by the College of Surgeons, it may be a matter of some interest to find that the Council of the College has receded from the (as I in common with many consider) false position they took. You may, therefore, think it useful to publish the correspondence I have had with the College on the subject. The letters will sufficiently explain that the objectionable requirement is withdrawn, and the matter placed on a much more satisfactory footing.

I am, Sir, your obedient servant,

Leeds, Feb. 19th, 1861. THOMAS NUNNELEY, F.R.C.S.E.

To E. Belfour, Esq., Secretary to the Council of the Royal College of Surgeons of England.

SIR,—Considerable uncertainty and alarm exist in the minds of both surgeons and medical students as to the regulations of the College of Surgeons respecting certificates of vaccination, whether the Council mean only to receive the certificates of certain men whom the Privy Council have selected in a few places to vaccinate, and thus altogether to ignore the qualifications of the members of their own College, or whether the certificate of any member, that under his personal superintendence a student has vaccinated and seen a sufficient number of cases of vaccination to properly qualify him to perform the very simple operation, and observe the course of the pustule afterwards.

I can hardly bring my mind to the supposition that the Council will officially and publicly proclaim that a member of their own College, who, by the diploma he holds, is imposed upon the world as an educated man, fit to be entrusted with the lives of his fellow creatures in all important cases of illness, injury, and midwifery, and yet that he is not competent to do so trivial a thing as vaccinate a child, and know when it is properly done. I have, therefore, replied to those gentlemen who have asked me the question, that I doubt not the Council of the College only mean to require the certificates of its own members; but as the question is one of importance, I should be glad of a distinct answer to it. I would venture to add, that if I am wrong in my interpretation of the intentions of the Council, besides the great slight put upon all the members of their College, there are other very grave objections to the scheme. It is certain to lessen the practice of vaccination by centralizing it, and throwing it into few hands, whereby greater trouble will be given to the parents, and all interest taken from medical men at large in urging the performance of it; besides the fatal and suicidal mistake of medical authorities recognising the meddling of an irresponsible and (in such matters) ignorant body in affairs purely professional, which if not under the control of the medical colleges alone, ought to be regulated by the Medical Council, which is entrusted with superintendence of medical education and examination.

I am, Sir, your faithful servant,

Leeds, Dec. 1st, 1860. THOMAS NUNNELEY.

Royal College of Surgeons, London,
15th December, 1860.

DEAR SIR,—In acknowledging the receipt of your letter of the 1st instant, relating to certificates of instruction and proficiency in vaccination, I am desired to acquaint you that such letter is still under consideration by the Council of this College.

Yours, dear Sir, very truly,

Thomas Nunneley, Esq. EDM. BELFOUR, *Sec.*

Royal College of Surgeons, London,
4th February, 1861.

SIR,—Your letter of the 1st of December last, respecting certificates of instruction in vaccination, has been laid before the Council of this College; and I am desired to inform you, in reply, that although the Council would prefer that candidates for the diploma of their College should obtain instruction in vaccination at the recognised hospitals where they receive instruction in the other branches of surgery, the Council are prepared to receive such certificates from qualified practitioners possessing the means of giving efficient instruction in vaccination; and, in accordance with such resolution of the Council, the Court of Examiners will require such certificate to be in the following form; namely,—

"I hereby certify that Mr. —— has received instruction in the principles and practice of vaccination from me for a period of upwards of six weeks, that he has witnessed the progress of the vaccine vesicle in more than twenty cases under my care; that he has vaccinated successfully; and that he is acquainted with the mode of preserving lymph in capillary tubes."—I am, Sir, your most obedient servant,

Thomas Nunneley, Esq. EDM. BELFOUR, *Sec.*

THE LANCET.

LONDON: SATURDAY, FEBRUARY 23, 1861.

REPEATED questions from correspondents induce us to examine, in some detail, the complicated and important subject of the relations of medical practitioners to each other and to the public in what are called consultation cases. Like most other laws that regulate the finer ethical relations between men, the law of professional intercourse is unwritten. We have no pretension to write it. Definite rules that can be applied to the various cases constantly arising in practice can hardly be framed. We must rather seek for our guide in the governing principle of justice, tempered by kindly feeling, which is the proper basis of all law. The rules of conduct of the solicitor and barrister towards each other and the client, are clearly and sharply drawn. It is easy for all the world to see when these rules are transgressed. The position of the medical profession is very different. It has been regretted by some, that the consulting physician or surgeon cannot, like the barrister, be debarred from all independent communication with the client. If this rule were applied to the practice of Medicine, the question would be simple enough, and few cases for dispute could arise. But the organization and position of the medical profession are different from those of the legal profession. Nor is it in our power to essentially modify duties and relations which are shaped, perhaps, more by the wants and the will of the public than by any abstract intra-professional considerations. Indeed, it would be absurd to attempt to exclude the public voice from the matter. The profession of Medicine, like that of Law, is a part of the public service. If it have been determined, by motives of general convenience, that the barrister shall only hold intercourse with the client through the medium of the attorney, so has it been determined by similar motives, that access to the physician or consulting-surgeon shall be either direct or through the medium of the general practitioner. It is from this condition that so many various and complicated circumstances arise in medical practice, leading occasionally to differences of opinion and misunderstandings as to the conduct of individual practitioners. We believe that if this right of the public to select their medical advisers, and the correlative duty of the profession, as established by usage, be fairly recognised, many disputes and much personal irritation would be at once obviated. Concurrently with the disappearance or conversion of the mere apothecary, and the tendency of late years towards an equalization of education and acquirements amongst all classes of the profession, the choice of a medical adviser is no longer, as formerly, a choice between grades, but one between men. The line of demarcation between the different orders is not so sharply drawn as in former times. The highly-educated and experienced general practitioner of the present day may be, and often is, preferred before the physician, if the latter rest his claim to public confidence simply on the fact of his being a physician. The only secure ground upon which the consulting practitioner can rely, is the *prestige* which springs from greater personal merit, and this can only be acquired by longer application to liberal studies, by more sustained devotion to scientific and clinical labours, by many years of work on the staff of our great hospitals, and by giving evidence of superior experience and cultivation of clinical powers by original researches that challenge the respect of the scientific world. Opportunity enables some men to achieve all this. Others achieve it by compelling opportunity to their purposes also. However obtained, superior industry and skill will always command the special confidence of the profession, and, through the profession, that of the public. There will always, therefore, be a sufficient encouragement, in reputation if not in fortune, for the more earnest and the more ambitious to strive after the position of consulting practitioners. The aid and counsel of such men will be naturally sought both by their brethren and by the public. What is their rule of conduct? What are the duties attached to this coveted position? Briefly and simply, to follow the intuitive perceptions of justice and of honour. The consulting physician or surgeon will, casting aside the sordid suggestions of the moment, remember how much of his enduring fame and future success depends upon the appreciation and good-will of the practitioner to whose aid he is summoned. Whether he be called in at the instance of the surgeon in attendance, or at that of the patient or his friends, in either case he is summoned in trust and confidence, and in reliance as great on his moral integrity as on his professional skill. To avail himself of his position to shake the good opinion entertained by the patient of his ordinary adviser, or unfairly to exalt himself, is a course repugnant to every generous mind. In order to avoid even the appearance of this conduct, the person called in should not, unless under very exceptional circumstances, consent to see the patient or his friends in the absence of the general practitioner. Under the vacillating impulses which agitate the minds of the sick, nothing is more natural than for the patient, grasping, as it were, at the image of health, to fix his hope of relief upon the last new counsellor, especially when he comes recommended by reputation, and attended by circumstances of deference. But the physician will be careful to discourage these not always rational impulses. He will study to limit his ministration simply to the object for which he was called in. The patient, indeed, has a right to expect from him a full and candid opinion, both as to the nature and course of the disease, and the treatment that ought to be pursued. It must rarely happen that this opinion cannot be expressed without compromising or offending the practitioner in charge. The physician will remember that if the ordinary attendant may be in error, he himself is not infallible. This reflection will impose upon him that discretion in speech, and moderation in bearing, which should ever be observed in professional intercourse. We have said that the physician should endeavour to confine his ministration to the particular purpose for which he is consulted. He will not unduly, or against the wishes and interest of his colleague, urge a repetition of the consultation. In this respect he is bound to defer to the concurrent request of the patient and the ordinary attendant. It must be superfluous to say, that he will not, without ample reason, consent to take up the case independently. Wherever, during a particular illness, the first medical adviser is dispensed with, and his place supplied by one whose opinion has been taken on the case, there is, *primâ facie*, an act of injustice committed, and certainly an injury inflicted. Of course, amidst the infinite complications of human affairs, cases will now and then arise, where the very unpleasant alternative will present

itself, of being compelled to supplant a brother, or to abandon the patient to neglect, or to a third adviser. So sensitive a thing is professional honour, that it is, perhaps, better under such a conjuncture to yield the place to a stranger. There is nothing which a physician should shun with more jealousy than the semblance of countenancing a slight upon a man whose reputation and success depend mainly upon the good opinion of a locality or a particular circle. It is the fear of such a slight that operates as the most powerful obstacle to the holding of consultations.

But there is another case, and perhaps the most fertile source of misunderstanding. A physician or surgeon has been called in to give his assistance in a particular illness. That illness over, some weeks or months perhaps afterwards the patient seeks the independent advice of the consultant. The superseded practitioner naturally feels a movement of irritation, and, with or without just cause, is apt to conclude that the physician has acted unfairly towards him. This suspicion is not, however, always well founded. The physician may have dealt in perfect honour and good faith. The real question will sometimes be: Is any member of the public bound absolutely to continue his confidence in, and to trust his health to the charge of, the same practitioner? To answer this in the affirmative were absurd indeed. The change and the motive of the change may be unreasonable enough; but still the right to select a new adviser cannot be disputed. This point being admitted, another question arises: Whether the patient in search of a doctor is restricted in his choice, especially is he debarred from seeking the advice of just the man whom he knows, and whose skill he thinks he has benefited by? It surely cannot be contended that our fluctuating patient has by once calling in a particular physician renounced for ever after the right to consult him independently. This right conceded, the correlative obligation of the physician to give his advice, on his usual terms, is equally conceded. We expressly state "on his usual terms," for herein lies a great safeguard against abuse. If we find a person called in as a physician, he is presumed to be practising as a physician—that is, receiving the *honoraria* current amongst the order. If such person afterwards accept from the patient remuneration on a lower scale, competing in this respect with the charges of the general practitioner who has been deserted, then is there reason to suspect the integrity of his conduct. But even if he be not prepared to accept less than his ordinary fees, he is still, we think, bound to represent to the patient the necessity of observing the acknowledged rules of professional courtesy; to endeavour to revive his confidence, if not forfeited by gross incompetence, in his former attendant.

To pursue the relations of consulting and ordinary practitioners through all their complications is an impossible task. And after all that can be said, we shall be compelled to trust to the sense of honour for our general guide, and this is a guide that will rarely lead us astray. In those nicely difficult cases in which two men, each animated by the consciousness of right, are at variance, the better course is to submit the facts to some independent practitioners of weight in the profession, both parties agreeing to abide by the judgment pronounced. We have no written law; we cannot refer to precedents; but we have amongst us the higher authority of professional honour and courtesy.

THE Privy Council has confirmed the powers conveyed by ordinances of the Royal Commissioners to the University of Edinburgh, whereby the University is enabled to grant the degrees of M.B. and Master in Surgery. This right, so keenly contested by the Colleges of Surgeons and Physicians of Edinburgh, places the University in a position to confer the double qualification in Medicine and Surgery, thus effecting by its independent powers that which the two Colleges had entered into a special alliance to effect jointly. The new right imposes upon the University the moral duty of raising the standard of their preliminary education, and of throwing down those barriers which the jealousy of academical professors has erected against extra-mural medical teaching. We understand the question of exercising a similar right has been considered in connexion with the University of London. It cannot be doubted that the strict examinations in Anatomy, Physiology, and Surgery, which have always formed an integral part of the curriculum of the metropolitan University, convey full evidence that the London Bachelor or Doctor of Medicine is qualified to practise Surgery. It seems unreasonable to deny to the London University a privilege which has not been earned for the Edinburgh University by superior merit. But we should most earnestly deprecate the principle of instituting a special degree, whether in Surgery, Obstetrics, or any other department. The degree should be one and indivisible. The degree of Doctor of Medicine might carry with it the title of C.M., but on no account should the title be obtainable independently.

MR. HUBBARD has gained a partial victory over the Chancellor of the Exchequer. We congratulate the profession on the fact. In obtaining a Committee to investigate the propriety of reducing the rateability of professional incomes to the Income-tax, Mr. HUBBARD laid down the rule, that one-third of the annual income of a professional man should fairly be laid aside, since every year he exhausts in the course of nature a share of his intellectual and vital power, which is his capital stock; and that not more than two-thirds of his income should be taxed. This principle is undoubtedly just. It will probably be embodied in the recommendations of the Committee. But the resolution for appointing the Committee was carried by only a narrow majority of four. We must not be too sanguine that their recommendations will be adopted by the House; for there is a strong party, in addition to the Government, opposed to change.

THE Rubicon is passed. The College of Physicians has duly held its first examination for the new licence to practise physic and midwifery, and has actually created the first batch of licentiates. Will the Apothecaries' Company assail the right of these gentlemen to practise pharmacy and medicine on the strength of their College licence? Will the Worshipful Company contest the competency, legal or professional, of the College to declare that these licentiates are fit and proper persons to practise? This would be a bold course to pursue. The Company, as we have all through the discussion foretold, will not venture upon this dangerous ground. It is rumoured, however, that proceedings in another form, to defend their assumed exclusive rights, have been initiated.

Medical Annotations.

"Ne quid nimis."

MANCHESTER RETURNS.

IF Manchester does not represent English feeling in all respects, it affords always an instance of intensely English character in the energy of its local and voluntary action in all matters of progress. Manchester acts for itself and by itself, with a useful reliance on its own powers for good, and with an earnest will to press into the foreground of social advancement. The Manchester and Salford Sanitary Association is in many respects an example of the superiority of voluntary and unfettered action over that of centralized and tape-bound bureaucracy. The metropolis possesses the largest and most efficient band of medical officers of health to be found in the empire. The materials at their hand are rich beyond comparison. Dealing with the health of nearly three millions of inhabitants, and commanding the resources of rich and powerful vestries, armed with Government powers, favoured by Government patronage, and combined in meetings at Richmond-terrace, this able, powerful, and intelligent body of sanitarians are unable to accomplish what all agree to be a primary necessity for sanitary progress—the publication of a weekly record of health and sickness. What the London medical officers of health are unable to accomplish with this powerful machinery, and in spite of resolutions and recommendations of Social Science and International Congresses, the Manchester Sanitary Association achieves for an important city, quietly, unostentatiously, without parade and without difficulty. A score or so of laymen and medical practitioners meet; they subdivide their body into working sub-committees, for finance, for lectures, for tracts, for the registration of disease, for the investigation of the action of water on lead, and infant mortality. All this various work they systematically accomplish. Districts reported as requiring special sanitary inquiry have been inspected by house-to-house visitation; and it was seldom that unhealthy conditions of the districts could be referred to want of attention or diligence on the part of the municipal bodies of either Manchester or Salford. Hence individuals were enlightened, attacked, or encouraged by public lectures, tracts, reports, special warnings and representations. In addition to a great deal of general work, that most important labour, the systematic registration of disease, has been established on a satisfactory scale. By the willing assistance of a number of medical practitioners, whose conduct in this respect is entirely worthy of the liberal profession to which they belong, while it reflects a personal honour upon each of them, the Committee are now publishing weekly returns of nearly all the new cases of disease coming under treatment in the various public medical institutions of Manchester and Salford, and from their combination a very large and regular proportion of the sickness occurring in the district is represented.

The Committee justly anticipate that these returns will afford a means of comparing the relative unhealthiness of the several districts of Manchester and Salford, and will thus serve to direct sanitary and benevolent exertions. They will give timely and distinct warning of the rise and progress of epidemics of fever, of cholera, or of other zymotic diseases. Thus preventive measures may be applied at the outset, when much may be hoped from their application. They will prove, if continued, a most valuable series of medical statistics, from which conclusions may be drawn respecting the causes of disease, the laws of epidemics, and their relation to atmospheric changes and to seasons of plenty and scarcity, and many other interesting questions of medical science.

At the International Congress last summer a series of resolutions were adopted urging upon all governments the propriety of procuring such returns, and for a brief period some time since the Association of Metropolitan Medical Officers of Health actually issued them; but some learned pundit in or out of Parliament put a veto on them; and Manchester, without Government aid, is at this moment a-head of London.

FOOD AT SOUTH KENSINGTON.

Non pane solum vivit homo; but by what food and by what processes of nutrition they live, the majority of mankind know little. If the mass of the people knew what they eat, what they should eat, and how and by what the human frame is nourished, the sum of human happiness and longevity might be materially increased. In forming food collections at the South Kensington Museum, the Privy Council had reference probably to economic rather than to physiological relations. But whatever may have been the original intention, Dr. Lankester, the Superintendent of the Food Collections, has known how to make them a source of interest and physiological instruction to auditors who would otherwise have had no access or temptation to such knowledge. The lectures on Food which he has been delivering to large mixed audiences are in course of republication in shilling handbooks,* which have a wide popularity, and are full of sound science, curious anecdote, and quaint illustration. Dr. Lankester has a singular power of illustrative keenness, and in the discursive lessons which he delivers on so many subjects there is an overflowing wealth of minute collateral information, which is always brought to the level of the last achievements of science. He is the Galignani of Biological science. The lectures on Salt and Mineral Food abound in these characteristics. Telling his hearers that there are about three drachms of salt in a gallon of human blood, he reminds those who have tasted their own blood that it has a salt flavour, and smiles at the extravagances of the late Dr. Howard, who protested that salt was the forbidden fruit in the garden of Eden. He fixes in their mind the fact of the presence of phosphate of lime in the bones, by reminding them that we get phosphorus for chemical purposes from bones. Balancing potash, the characteristic salt of potatoes and other fresh vegetables, against chloride of sodium, he picturesquely illustrates the theory of scurvy and its cure by vegetable food. In dealing with iron as a food and a medicine he strikes a blow at homœopathic fallacies, and illustrates its presence in the body by an apocryphal anecdote of the French, who, he says, after burning their deceased friends, take the ashes and extract the iron, and convert it into a mourning ring, which they wear *in memoriam*.

The whole subject of the physiology of food is admirably illustrated by the collections at South Kensington; and if medical practitioners could persuade their patients to study these collections and the clever illustrations of their use which Dr. Lankester every year affords, they would materially add to their own comfort and the general welfare.

TEA-TABLE TALK.

DR. EDWARD SMITH has related, at a meeting of the Society of Arts, the results of investigations as to the action of tea. They contradict preconceived notions, as well as the conclusions of previous observers. It has been stated by Boecker and others that tea has the power of preserving the tissues of the body from waste. The general conclusions of Dr. Smith are, however, that it hastens and facilitates the waste of the body. In every experiment, moderate quantities uniformly and regularly increased the respiratory changes, so that there was an advance of from one-fourth to one-fifth in the quantity of carbonic acid which was evolved from the lungs; the greatest effects occurring in from forty to fifty minutes, and the whole effect subsiding in from an hour to an hour and a half. When the dose was divided, as 25 grains of tea every quarter of an hour for six

* On Food. By Edwin Lankester, M.D., F.R.S. Hardwicke, Piccadilly.

doses, instead of 150 grains in one dose, the action was much more uniform and sustained—a point of some interest in relation to the posology of medicines. Dr. Smith states that tea exerts an action in increasing the perspiration by the skin. Therefore he agrees with the Chinese that it is "of a cooling nature," and especially if taken with hot water, "when the perspiration becomes oftentimes very profuse, and the subsequent cooling proportionately rapid." We are not, however, disposed to admit that a drink which produces profuse perspiration is therefore a cooling drink. All hot fluids will do this, and perspiration is a means of coolness, but certainly far from a test of it. Few people, except perhaps a very refined physiologist, on seeing a man sweating in the sun, or perspiring after a draught of hot fluid, would say, "See how that man is cooling himself." And more expeditious means for cooling oneself could certainly be devised than that of inducing profuse perspiration. Ginger, salt, or lemon, Dr. Smith observes, when added to the tea, will counteract its cooling property. In fine, he concluded that the essential effect of tea is to promote all vital actions, and to augment the functional activity of the skin. Hence it increases the assimilation of the food, both of the flesh- and heat-forming kinds, and, with abundance of aliment, it must promote nutrition, whilst, in the absence of sufficient food, it increases the waste of the body.

Amongst the conclusions which Dr. Smith draws are, that tea should not be taken at breakfast, except there remains unused food from the supper on the previous night, or except the system be usually too full of nutritive material, as in those who dine heartily at a late hour; nor with our principal meals, or those at which we take the greater part of our animal food, for after such meals a dry and hot skin—that is, lessened action of the skin—is a natural effect, and this would be opposed by the tea.

This does not leave a very wide margin of time for its consumption, although it allows tea to be taken an hour or two after dinner—when, in fact, it commonly is taken.

Dr. Smith deserves great credit for laboriously working out these conclusions, and, as one speaker said, thus persecuting himself from day to day. Amid much that is interesting and important, we regret to find but little reference to the action of tea on the nervous system. You can kill a frog with half a grain of theine; and everyone can bear testimony to the influence of black and green tea on the cerebral functions and on the nervous system. These effects are not to be confounded with merely chemical changes, and this part of the subject especially requires further study.

THE TURKISH BATH.

BEFORE us lie eight pamphlets, by medical authors, on the Turkish Bath. This oriental and antique luxury has already seized very firmly the minds of the British public. There is a crisis of excitement which favours the introduction of striking novelties: recently this has been at a fever heat in the case of the Turkish bath. We think there are symptoms of a reaction. The bath has had the fortune, or the misfortune, to be "taken up" by men accustomed to write for the public. The result is that it has been forced upon general notice by all the avenues of the press, and journalists have vied with pamphleteers in exhausting the language of eulogy on a matter of which they have only a superficial and delusive knowledge. The literature of the subject is very unsatisfactory: the pamphlets are, for the most part, either puffs or long descriptions of baths, ancient and modern, with a few instances of cures effected. There is no form of bath ever employed, no plan of treatment for diseases ever suggested, which cannot boast its list of cures. The medical properties of the bath are yet unknown; they remain to be fully and impartially investigated. Its fitness for daily use, as a matter of customary hygiene, has been hotly debated. On the one hand, a number of gentlemen quote the instances of a few persons who indulge daily in the Turkish bath with impunity or with advantage; on the other hand, it will be remembered, that all kinds of inconvenience and danger have resulted even from its occasional use. Prolonged faintings, palpitation, headache, intermittence of the pulse, have now many times been recorded. But what is the action of this bath? Dr. Richardson has afforded us a key to its effect on the system. He proves that the essential and immediate effect of respiring heated air is, that the process of oxydation in the body goes on with three times the normal rapidity: the blood is reddened, the muscles are reddened, and the venous blood assumes a more florid tint. Let us add to this, that profuse perspiration occurs. In other words, then, we can assert with certainty that, in the Turkish bath, the processes of waste or destruction are carried on with an extraordinary activity, whilst the functions of respiration and skin-action are hastened. This is the only fact which can be accepted as proved in relation to the Turkish bath. It speaks highly of its probably therapeutical uses when wisely directed; but it warns us to be careful before adopting such an agent amongst the ordinary accessories of our social existence. The lovers of the bath protest that they feel a sensation of lightness and exhilaration on emerging from it. But it has been very pertinently remarked, that this sensation of lightness is precisely that which delighted those persons who used to have themselves periodically bled; it is the sensation of a convalescent recovering from a debilitating illness; it is an indication of temporary debility. There is a well-known British institution of "tubbing" in cold water each morning, and of promoting the action of the skin and the renovation of the body by manly exercises in the open air, amongst which walking, cricketing, and rifle-drilling are the simplest and the most efficient.

So far as the question has yet been elucidated, we have no reason to think that, while these admirable and healthy stimulants to health are properly pursued, the Turkish bath, with its heated air and profuse perspiratory influences, can become a needful or desirable resort of our hardy youths or healthy men. The time devoted to the bath would be better employed at the drill; and while tubbing flourishes Englishmen will not need to waste long hours daily on the effort to wash and to perspire. What the bath may do for medicine yet remains to be seen; and of its utility in this sphere we see reason for strong hope. It is very desirable that a fair and scientific trial should be made at a metropolitan hospital, under the direction of the medical officers.

ROYAL COLLEGE OF SURGEONS.

HUNTERIAN ORATION, BY MR. COULSON.

THE Hunterian Oration of Mr. Coulson, at the College of Surgeons, has produced a much deeper impression and obtained a wider reputation than is usually attained by set speeches delivered on anniversary occasions. This is probably due to the elevated and philosophic generalizations which the orator based upon a review of the results of the labours of Hunter, and their influence upon modern theories of Life. We reproduce some sentences from Mr. Coulson's oration, dealing with this question in a spirit which cannot fail to be appreciated:—

The chief difficulty in the way of admitting life as a principle independent of and antecedent to organization appears to be connected with an old distemper of the human mind—namely, the tendency to clothe with reality nothing which is not evident to the senses; to attribute substance exclusively to modifications of matter. But even laying aside the question of a vital force, and the speculations whether "this finite life which we have may not be, like the life which we seek after, a mystery," we are still entitled to infer its existence from its effects, and to seek its laws in its divers modes of operation. Even this is a grand and immense task, beset, as I have said, on all sides

by difficulties arising from the nature of the subject. For how different in every respect is the science of life from any of the exact sciences! In these we are able to regulate all the conditions of the phenomena which we examine; we can analyze them, compare them, and then arrive at general laws. But the science of life is not an exact science which we can submit to calculations, nor one in which consequences can be certainly deduced from ascertained principles. In other sciences objects may be observed accurately, and problems may be determined independently of one another. But in biology the observer has no such advantage: he must take things as they are; he cannot regulate the conditions under which he may observe objects, or analyze them so as to arrive at general conclusions; he is unable to reduce any problem to its elements, as may be done in physics or in chemistry, comparing element with element. He is compelled to take them with all their conditions united, and analyze them in his mind, not with his scalpel or in his crucible. Every attempt to analyze life in this manner must necessarily fail, because we are unable to obtain a single element separately from the others. Life must be taken as a whole. We cannot isolate a single organ, a single particle of living matter, from the whole, without its instantly losing that essential character which is the subject of inquiry—without its relapsing from life into death.

But Nature has done for us what we cannot ourselves effect. She has made this vital dissection; she has combined organs in such endless variety, she has performed so many experiments and displayed them before us, that, with industry to inquire and intelligence to deduce, we arrive at various substantial and important conclusions.

In the living museum of creation Nature has exhibited in the different classes of animals nearly every possible combination of organs; suppressing some, adding others; experimenting as the chemist does in his laboratory, and demonstrating for our instruction the results of her experiments. Hence, if we follow our observations through a sufficient range of animal life, we arrive at well-founded conclusions concerning the uses and functions of parts and organs, and are enabled to determine that which is essential, and to approximate to the knowledge of the seat and the apprehension of the nature of the vital force.

An examination of Hunter's Museum will show at once that such an inquisition of the experiments made for us by Nature was his guiding principle. Here he has stored up in one vast laboratory the results of those experiments which lead to, if they do not actually establish, so many of Nature's laws. Here he has arranged that matchless series of preparations through which life is pursued in an unbroken sequence from the most perfect and complex to the most simple of animals—in which, each non essential element being gradually eliminated, we are enabled to lift from life all but its last material veil.

The most notable general character which is to be remarked of force is that it is derived from an antecedent force of the same kind. A knowledge of this character at once relieves us from the supposed necessity of tracing life to a point or time at which it begins. Life is not to be noted in any particular point, but is universally diffused throughout every particle of animated matter; it does not begin at any particular time, but has existed from all time. Life contains life within itself for its propagation and continuance. The new being is not made up of elements taken from complex bodies, but from a particle of life detached from the parent body and endowed with the same creative and formative force as the original. Life, then, is a chain, the links of which unite beings from one generation to another. One end is hidden in the womb of time; the other (to borrow the sublime phrase of the philosopher) is attached to the very footstool of the throne of God.

Although all efforts to arrive at the first source of life have thus necessarily failed in the main point, they have yet not been altogether fruitless. They have led to higher considerations than before prevailed. We find that every living being has formed part of another living being previous to independent existence. The vital principle is not inherent, but transmitted; and ascending thus from life to life we arrive at the point when life commenced, fresh born, yet perfect unto all time, from the hands of its Creator; and in this single deduction from material observation we behold the death-blow of materialism, and all its inferential errors, scientific as well as moral. Again, were speculation in this most tempting field permitted, I might observe that, as life has no finite beginning here, so perhaps life when once established has in its proper nature no limit of duration. Life evinces a tendency to continue its development incessantly, and it seems to cease, not from any inherent imperfection in itself, but merely from the impediment of matter.

Passing in review the cellular origin of all animal and vegetable structures, Mr. Coulson said:—Here, life, as far as our senses are concerned, first exhibits its formative force, and as the instrument with which it acts in both cases is the same, we infer that the force likewise is one and the same in animal and vegetable existence.

The same principle of unity which prevails in the development of elementary structures extends to complete organizations. In the vast range of animal creation, science sees but a single animal; all are reduced to the same type; and while, through the boundless varieties of organized life, we thus discover one grand plan—one simple and sublime system—connecting together the links of creation, and binding into one chain the present world with the worlds which have passed away, we are strongly led to infer from such unity of organization, unity of the force from which that organization receives its movements. Let us also observe how much this argument from analogy is strengthened by the fact that the human embryo, during its various stages of development, passes through various forms which shadow forth the range of the animal kingdom. Successive forms appear and disappear, yet here we must admit that the same life presides over the successive transformations; that the motor power remains one, while the parts of the machine are undergoing change to transform one motion into another. Considered in the sublime unity which modern investigations have thus revealed or suggested as subsisting throughout the entire range of the sciences, natural philosophy itself loses its isolating limitations. We can appeal to all living forms and bygone types, to the universal laws as well as to the forms of matter, which show forth a striking unity. We need no longer to seek only in particular parts and traits for the proof or illustration of intelligent contrivance.

LETTSOMIAN LECTURES.

DR. RICHARDSON commenced the delivery of the second course of Lettsomian Lectures on Monday, Feb. 11th. The subject of the course was entitled "Certain of the Phenomena of Life." After a brief introduction, in which the metaphysical method of studying life was severely criticised, and the physical character of the study was maintained, the author proceeded to the subject proper of the lecture—viz., the Phenomena of Life as manifested in the process of Oxygenation. The nature of oxygen was first introduced. According to Dr. Richardson, oxygen in the gaseous state—that is, as it is presented for respiration—is not to be considered as a simple body, but as composed essentially of a ponderable base diffused through an imponderable medium. Hence, when oxygen enters into combination with another body, it does so at the expense of the loss of more or less of the imponderable part. This, liberated, gives rise to the presence of heat or heat and light, or electricity. Bodies capable of combining with oxygen are also to be looked upon, when they can take the gaseous form, as mixtures of a ponderable base with an imponderable fluid, and in the act of combination their impenetrable fluid also may be set free. When therefore oxygen enters into combination with another body, with evidence of heat, the heat must be said to have pre-existed, and to have been evolved, not generated; and when oxygen enters into combination, with evidence of electricity, the electricity pre-existed, and was liberated by this combination, not *made* by it.

The corollary from this argument was, that gaseous oxygen may be modified in its action by a variety of causes acting by and through the medium which constitutes its imponderable part, and that this was the fact the lecturer next proceeded to explain. He followed out this portion of his discourse under the following heads:—1. Effects of quantity of oxygen—i. e., condensation—on animal life. 2. Effects of cold and heat. 3. Effects of electricity. 4. Effects of re-inspiration. 5. The influence of agents which by their mere presence prevent the process of oxygenation. The following brief summary of these most interesting topics must suffice:—The mixture of oxygen and nitrogen which supports life longest in a confined space, at 60° Fahr., is a dilution of four parts by volume of oxygen to one of nitrogen. This mixture at the same temperature supports life longer than pure oxygen. In pure oxygen, at and below 60°, animals die—a circumstance due to the fact that in such oxygen they do not consume the gas. The lecturer proved this by showing that a secured animal placed in a chamber of oxygen, in which a previous animal

had died, lived as long as the one preceding. The influence of cold on oxygen was to destroy more effectually the combining power; that it did so was proved by the fact that if two animals are placed, one in pure oxygen, the other in air, and both in a temperature so low as 20°, the one in oxygen dies first. Heat, on the other hand, upholds the sustaining power of pure oxygen. Electricity driven in small sparks through oxygen sustains the power of the gas, while in large sparks it destroys the sustaining power. Re-respiration reduces the sustaining power of oxygen to a minimum, notwithstanding the removal of carbonic acid and ammonia as products of respiration. The substances which prevent oxygenation have for their great type ammonia. They include chloroform and all narcotics, volatile, fluid, or solid, as well as many other bodies which are products of the economy. This part of the lecture was illustrated by experiments, which showed that it did not matter whether the disturbing body were introduced by the medium of the oxygen or of the substance to be oxydized. Thus the diffusion of a small quantity of chloroform through a bell jar of air was shown to prevent the combustion of a taper. In this case the catalytic agent was introduced through the air. In another experiment, a solution of iodide of potassium and starch was treated with peroxyde of hydrogen. Instantly the iodine was set free, and the blue iodide of starch formed. But another solution of iodide of potassium and starch was taken, and to it a minute portion of ammonia was added. Then the effect of the oxygen water was nil until the evaporation of the ammonia.

Dr. Richardson concluded by showing the bearings of his subject on practical medicine, and announced that his next lecture would be on the "Animal Calorific Process." There was a very numerous attendance of Fellows and visitors.

The second lecture was delivered on Monday, the 18th inst. In this lecture he took up the Calorific Process as it occurs in the living body. His subject was put into four major propositions:—

1. That Caloric is the primary cause of motion in nature, and that it is, therefore, a cause of life in so far as motion represents life.

2. That the process of Calorification in animal bodies takes place mainly in respiration.

3. That the evolution of Caloric in the body, at a temperature of 96°, is brought about by the extreme distribution of the carbon, and by the dilution of the oxygen in common air.

4. That Caloric is the prime cause of muscular motion, and is alone sufficient to restore the muscular irritability.

In discussing the first of these propositions, the lecturer referred to the sun and its influence on life, illustrating how life was proportional to the heating power of the central luminary. Then he instituted the analogy as induced by the effects of artificial heat, and the production and effects of heat as exhibited in a steam-engine and a horse.

On the second topic he expended an elaborate experimental argument, all tending to prove that Black and the early observers were right as to the main source of animal heat. This part of the lecture was illustrated by some simple but effective experiments, in which the colour of the arterial, as distinguished from the venous, blood was shown to be due to physical changes in the red corpuscles. Thus it was shown that the mere increase in the density of the blood effectually arterialized it, in so far as its colour was concerned.

The third proposition was also illustrated by experiments, and clearly set forth. According to Dr. Richardson's hypothesis, the combination of oxygen with the carbon of the blood is effected by a means similar to that which occurs in vinous fermentation—zymosis, the fibrine playing the same part as the diastase on other albuminous bodies used to excite fermentation.

The last propoaition was not completed on this occasion; but in support of its truth the lecturer stated that by injecting simple warm water through the arterial systems of different animals he had been enabled to restore vigorous muscular contraction one hour and a half after death. This subject, resumed at next lecture, will form a prelude to an inquiry into the "Methods of Restoring Suspended Animation."

THE LATE SIR WILLIAM BURNETT,

K.C.B., K.C.H., M.D., F.R.S.

SIR WILLIAM BURNETT was born at Montrose in January, 1779, and received his scholastic education at the grammar school of that place. He served his apprenticeship to Dr. Hunter, of Montrose, and subsequently proceeded to Edinburgh with the view of further prosecuting his medical studies. Shortly after his arrival in the northern capital, he was, under peculiar circumstances, induced to accept the appointment of surgeon's mate on board the *Edgar*, of seventy-four guns, then at anchor with the North-sea squadron in Leith Roads. He subsequently served in the *Goliath* as assistant-surgeon under Sir J. Jervis, and was present at the action off St. Vincent and at the siege of Cadiz. He continued in the navy, and was present at the battles of the Nile and Trafalgar, for which service he was created a K.C.B., and had four war medals presented to him.

For five years Mr. Burnett had the charge of the hospitals for prisoners of war at Portsmouth and Forton, where, from the extent of the duty and the nature of the diseases, he necessarily encountered great fatigue both of body and mind, while he was daily exposed to the risk of contracting contagious fever, with cases of which the hospital was generally crowded, and from the effects of which his assistants as well as the nurses were constantly falling sick around him.

Still amidst these trying scenes his attention was not confined entirely to the practice of physic; for during the time he was surgeon of the Hospital for Prisoners of War he instituted a series of dissections, which were pursued assiduously both by himself and his assistants; and, independently of other operations, which were of frequent occurrence, he amputated the arm at the shoulder-joint five times—four times with the most perfect success.

How these laborious duties were considered to have been performed will be best understood by our stating that in 1810 they procured for him from Mr. Yorke, then First Lord of the Admiralty, the appointment of Physician and Inspector of Hospitals to the Mediterranean Fleet, which then consisted of more than 120 sail of all classes of vessels.

Towards the end of 1813 Dr. Burnett received official permission to return to England on account of impaired health. He arrived at Spithead on the 24th of December; and at the beginning of March following, his health having improved, he was requested to take medical charge of the Russian fleet in the Medway, then in a sickly state. He also undertook the superintendence of the department of prisoners of war at Chatham, amongst whom a contagious fever was at the time raging, with a fatality scarcely second to the plague itself.

On visiting the prisoners of war, he found the Danes and the Americans in a very deplorable state. The hospital-ship was full of cases of the worst description; one surgeon had died, and there were two more in the ship principally infected dangerously ill. The number of sick was not known, and, to add to the general embarrassment, small-pox prevailed extensively in one of the infected ships; so great, indeed, was the alarm which existed, that the Commander-in-chief thought it necessary to place the whole in quarantine. Some idea of the malignancy of the disease may be formed when we state that at the time of his taking charge he found fifteen patients in the hospital-ship with their lower extremities in a state of gangrene, and almost every patient covered with petechiæ or vibices.

Under all these circumstances, sufficiently distressing of themselves, the season was inclement and the ground deeply covered with snow; still Dr. Burnett visited the ships daily, spending hours in the midst of infection, selecting the worst cases for removal to the hospital. So hazardous was this duty considered by the executive officers of the ship, that the strongest representations were made by them to prevent his going below, alleging that he would either meet with personal violence, or suffer an attack of fever. He, however, persevered in making his visits below without anyone accompanying him, and by degrees restored order amongst the prisoners.

In the progress of the disease, the medical duties became still more arduous, in consequence of the surgeons of both the hospital ships being attacked with the prevailing fever, by which, in addition to his other duties, the immediate charge of both the hospitals fell upon Dr. Burnett. He had the satisfaction, however, to find that his exertions were attended with the happiest results: for out of 193 patients taken ill before his arrival at Chatham, 54 died; while out of 518 taken ill after he took charge, only 61 died.

In 1822 he received, through a friend, entirely unsolicited, an offer from Lord Melville of a seat at the Victualling Board, as the colleague of Dr. Weir, in charge of the Medical Department of the Navy. It was now that a new era opened for the application of the practical knowledge which the subject of this memoir had so extensively gained, for perhaps no one was more conversant with disease in all its varied forms; and although the subsequent benefits to the naval service from his talents and watchful exertions are too numerous, and would

occupy too much space, to detail in a brief statement of this description, it would be great injustice to his memory to omit notice of them altogether, and therefore we select the following for concise remarks.

Amongst the observations of Dr. Burnett in his appointment as Commissioner of the Victualling Board, he was forcibly struck by the insufficiency of the returns then in use to show the nature and extent of sickness and disease existing in the naval medical establishments on shore as well as in the service afloat; he therefore required from the medical officers periodical returns, nosologically prepared, to show the extent of the particular classes of diseases in each hospital or ship on every station, and also the number of deaths from each disease, separately. These regulations have been of great advantage in the preparation of statistics, to show the effect of the remedial systems pursued, both past and present; and, indeed, from this source, under the Director-General's superintendence, most elaborate and interesting statistical reports have been published.

Considering the inconvenience which arose from the want of a naval hospital on shore at Chatham, Sir William strongly urged the erection of the present one (Melville Hospital), in lieu of the plan, which had been long practised, of sending patients to a vessel used as an hospital ship at that port; the regulations and arrangements of the said hospital were principally suggested by him, and the change proved most beneficial. His personal visitations of that and the other naval hospitals also produced great benefit in the adoption of regulations suggested by him for their better and more perfect economy and management. Nor is it one of the least acts for which credit is due to him, that a moral and merciful management of the naval lunatics at Haslar has been established, easier in its execution, and changing into comparative happiness the former misery of those unfortunates. This change was effected under the personal care of Dr. Anderson, who was selected by the Director-General for that office, on account of his superior talent, practical knowledge, and natural kindness of heart, and to whom the service is so much indebted for the present admirable state of the asylum.

All the codes of instructions relating to the naval medical service, either in hospitals or ships, as well as at the established sick-quarters and marine infirmaries, were revised or constructed by Sir William with evident advantage to the service, as exemplified by the facility and correctness with which, in comparison with its former difficulties and irregularities, the whole business of the medical department has for many years, with a reduced establishment, been conducted: and with these regulations may also be connected those which have been formed and issued for the qualification of candidates for admission into the naval medical service, by which it may confidently be asserted that a class of medical officers now exists in the Navy equal to any whether in this or any other country.

In the year 1841 a circumstance occurred which strongly showed the regard and esteem entertained for Sir William by the naval medical corps. A committee from that body met for the purpose of offering to the whole of their brother officers an opportunity of evincing their feelings by presenting to him a testimonial of the sense they had of the benefits he had rendered, not only to that class of officers, but to the service generally. The opportunity was eagerly embraced, and the measure carried out with the greatest rapidity; although when it first came to his knowledge that the affair was proceeding he expressed his strong objection to it; but the managers would not desist. It could not, however, be otherwise than gratifying to him to witness such a feeling, and the more so as those officers who had retired from the service were as strennous in the cause as those who were actively employed. The result was that in a very short space of time Sir William was presented with his portrait in full-length, painted by Sir Martin Shee, then president of the Royal Academy, accompanied by a handsome service of plate.

Upon all occasions, when opportunity offered, Sir William evinced his anxiety and zeal for the respectability and prosperity of the medical department of the navy; and amongst the many instances which could be adduced in proof of the truth of this assertion, it is considered only necessary to refer to the honest and manly evidence given respecting the medical officers of the navy by Sir William before the Naval and Military Commission appointed by her Majesty. No small portion of the success which has attended the prolonged struggle of the naval assistant-surgeons for their proper position was owing to the continued support of their claims by Sir William Burnett.

Sir William, soon after coming to London, became a licentiate of the Royal College of Physicians, and some years afterwards a fellow of the College. He was also a fellow of the Royal Society, the Royal Colleges of Surgeons of Edinburgh and Dublin, and of the Medico-Chirurgical Society of St. Petersburg. He was the author of several papers, on different medical subjects, in the periodical medical journals; of a work on the Mediterranean Fever; the Official Report of Fever in the *Bann* Sloop-of-War on the African Station; and an Account of a Contagious Fever prevailing amongst the Prisoners of War at Chatham.

In according due praise to the dead, adverse truth should not be suppressed. It was regarded by many as a scandal to the medical profession, and to the medical department of the navy, that the Medical Director-General should for many years have been the ostensible proprietor of a Patent Disinfecting Fluid—a composition which was advertised and pushed with all the pertinacity of commercial keenness. This pernicious example of Sir William Burnett has encouraged several lesser men, in and out of the service of which he was the head, to advertise secret medicines. How different is this course from the noble principle of such men as Dr. Neil Arnott, who, having invented many admirable contrivances of inestimable value to mankind, freely gave them to the public!

Sir William Burnett died on the 16th inst., at the advanced age of eighty-two.

Correspondence.

"Audi alteram partem."

ST. THOMAS'S HOSPITAL AND THE TURKISH BATH QUESTION.

To the Editor of THE LANCET.

SIR,—To the statement which you have been requested to make (see THE LANCET of Feb. 2nd, p. 105)—that the allegations which I made as to the opposition of some of my colleagues to the Turkish bath are false—I beg to offer a distinct and emphatic denial. It will remain with your informants to support their statement, which I am prepared to dispute. Meantime, having given currency to a charge which personally affects my honour, you will not refuse me totally to deny that I have stated anything unsupported by proof.

I am, Sir, your obedient servant,

Sussex-gardens, Hyde-park, Feb. 19th, 1861. R. H. GOOLDEN.

THE CONVICT ESTABLISHMENT AT CHATHAM.

To the Editor of THE LANCET.

SIR,—I copy the following extract from *The Times* of the 19th inst. relative to the diet of the convicts at Chatham:—

"The amount of food given to each convict weekly at the Chatham establishment is as follows:—189 oz. of bread; 42 oz. of cooked meat, free from bone &c.; 7 pints of tea, 5½ pints of good soup, 7 pints of cocoa or gruel, and 7 lb. of vegetables; in addition to which certain of the convicts are allowed cheese and porter on Sundays. The weekly quantity of food supplied to each pauper in the Chatham workhouse is—112 oz. of bread; 16 oz. of meat, pudding, and vegetables; 4 oz. of cheese, 7oz. of butter, and 1 oz. of tea."

The folly of this reckless waste of food is simply sinful. The idea of thus pampering and stuffing these wicked convicts! I have had some little experience in the issue of diets in both military and civil hospitals, in barracks, and in asylums; and I have no hesitation in thus characterizing the quantities of food issued to these worthless criminals. Instead of 189 oz. of bread per week, 112 oz. is sufficient. Again, in place of 42 oz. of cooked meat, 28 oz. would—made into mutton broth—be ample for every purpose of health or capacity for work. The cheese and porter on Sunday, when no work is done, is a mere premium on crime.

Admitting the necessity of a larger and more stimulating diet for men in confinement, there is yet a weekly waste of 77 oz. of bread and 14 oz. of cooked meat per prisoner, besides the Sunday cheese and porter, which no necessity of health can justify. Some cases may require an extra ½ lb. of bread per day; but even then the weekly waste of bread per prisoner would be 49 oz.

"Of poor craftsmen," says Carlyle, "that pay rates and taxes from their day's wages; of the dim millions that toil and

moil continually under the sun,—we know what is the lodging and the tending. Of the Johnsons, the Goldsmiths, lodged in their squalid garrets—working, often enough, amid famine, darkness, tumult, dust and desolation, what work *they* have to do—of these, as of 'spiritual backwoodsmen' understood to be pre-appointed to such a life, and, like the pigs to killing, quite used to it, I say nothing. But of dukes—which duke, I could ask, has cocoa, soup, meat, and food in general, made ready, so fit for keeping him in health, in ability to do and to enjoy?"—(*Latter-day Pamphlets:* "Model Prisons.")

I am, Sir, your obedient servant,

Feb. 19th, 1861. C. L. R.

CORONERS' INQUESTS.

To the Editor of THE LANCET.

SIR,—In consequence of a disingenuous attempt having been made, in an article under the heading, "Crowner's Quest Law," in a recent number of the *British Medical Journal*, to exculpate Mr. Dayman, of Millbrook, and his assistant, from the dissatisfaction occasioned by their conduct in refusing to attend a poor woman (member of a benefit society to which Mr. Dayman is the surgeon) upon whom an inquest was lately held at Rownhams, in the parish of Nursling, near Southampton, (a correct account of which appeared in the local papers at the time,) by imputing "ignorance and presumption" to me as coroner, and "pliability" to the jury, of whom Colonel Payne was foreman, I consider it due to all parties to say that if Mr. Dayman thinks it will be conducive to "the honour and dignity of the profession" (of which he appears to be the champion), or to the reputation which he so complacently announces as "too well established to be affected by the misdirection of any coroner," I have no objection to publish at his expense the whole of the evidence taken at the inquest, together with the verdict of the jury. The public will then be able to form their own opinion of the case, and to judge for themselves whether it "exhibits (as Mr. Dayman alleges) the liberties a provincial coroner will occasionally take with the English law and with the pliability of a rural jury;" or whether it does not rather exhibit a melancholy example of the indifference occasionally manifested by those who enter into cheap contracts to supply the poorer classes with medical attendance.

I am, Sir, yours most obediently,

JOHN H. TODD,

Winchester, Feb. 1861. Coroner of Hants.

SWALLOWING A WHISTLE.

To the Editor of THE LANCET.

SIR,—A few months since I was sent for by Mrs. T—— in great haste to see her child, who, she said, had swallowed a lark whistle. On arriving at the house, I found the patient was a little girl six years of age. Her countenance was anxious, and she complained of severe pain in her throat. Her breathing was not obstructed, and she could swallow perfectly well. It seemed that the evening before she with some other children were playing together, when one of them tried to take away from her a lark whistle with which she was amusing herself. Being in danger of losing her toy, she put it hastily into her mouth, and while struggling with her companions it, as she said, "slipped down her throat." She immediately ran to her mother, told her what had happened, and complained of great pain, which continued during the night, and, instead of diminishing, seemed to increase. In the morning I was sent for. It was evident from the ease with which the actions of deglutition and respiration could be performed that the whistle had not lodged, but had either found its way into the stomach or had been spasmodically ejected at the time it was supposed to have been swallowed. I immediately gave her some castor oil, which produced copious evacuations, but no whistle appeared. During the next two days she took more of the drug, but with no success. For a fortnight after this the child continued to reject every kind of food almost immediately it was taken into the stomach, and she became very much emaciated. On the fifteenth day from that on which I was called in she was seized after breakfast with her usual sickness, and on the contents of the stomach being examined the whistle was found amongst them. Since that time the vomiting has entirely ceased, and the child has grown as lusty as she was before her accident. I enclose the whistle.

I am, Sir, your obedient servant,

CHARLES L. EDWARDES, M.R.C.S.

Rugeley, Staffordshire, Feb. 1861.

THE DEGENERATION OF RACE.

To the Editor of THE LANCET.

SIR,—When apparently reasonable opinions are put forth by men entitled by their high scientific attainments and unimpeachable veracity to our utmost respect, and supported by the authority of others of equally high standing, these are unhesitatingly received by the mass of the community as positive facts, and it would be considered presumption on the part of anyone to question them. It is, however, the privilege of the practitioner of medicine to be allowed to think and examine for himself, unbiassed by preconceived opinions; and it is in the exercise of this right I venture to doubt the truth of the generally received opinion stated in THE LANCET of December 22nd, "That long and ample observation has sufficiently shown to physicians, to historians, and to ethnologists, that marriages of consanguinity lead to the intellectual degradation and physical degeneration of the offspring of such unions." If such were the case, why does the earliest historian describe the all-wise Creator as having formed but one pair of human beings to populate our world; throw out hints that the union of the descendants of the two distinct lines from that first pair was the primary cause of the destruction of the mixed progeny of these ill-mated marriages; and, as if a few hundred human beings would be less conducive to fulfil the command to be fruitful and multiply, the stock is reduced to its original duality. The confusion of tongues and consequent dispersion of mankind, divisions and subdivisions into tribes and families, all appear to favour rather than condemn consanguineous marriages. But to come nearer home, what accounts do the historians of our own country give? That the Celts, rather than intermarry with the Saxon invaders, preferred to retire westward before them; that the Gaelic Celt of the west of Scotland extirpated rather than became amalgamated with the Cymric Celt of the east; and that the different Gaelic clans and septs were constantly at war with each other. In modern times it has been the policy of colonists to annihilate and not to intermarry with the aborigines. Since, then, there exists in each variety, division, and family of the human race an innate antipathy to each other, therefore consanguineous marriages, instead of seeming unnatural, appear more in accordance with our instincts, and they have ever been sanctioned by laws natural, human, and divine. And if that be true which some have asserted, that the inhabitants of one continent cannot perpetuate their race *ad infinitum* on another, is it unreasonable to suppose that those of one nation, province, or village, shall be less prolific when removed from the place of their nativity? And should such be the fact, the more limited the field for matrimonial choice, as far as fecundity is concerned, the better. Again, if, as is the general belief, we all, since the Noachian deluge, derive our descent from one pair of relatives, has the constitution of all things, in the short period intervening between then and now, become so altered as to render any other couple of relatives propagating their species as did their penultimate antediluvian progenitors impossible?

It is stated that the mental alienation and extinction of the great families of France and England are attributable to inbreeding. As far as our own aristocracy is concerned, as well as "that noble apology, death in the service of their country," may not others equally noble, such as superior mental attainments (relatively to their number), and there being less of the Teutonic element in their composition, be added?—to say nothing of ignoble causes, *de magnatibus nil nisi bonum*, may not these and many others that have been overlooked have a far more injurious operation upon them than the one accused?

It is said "in 1583 the Council of Berne accorded rights of *bourgeoisie* to 387 families, and within two centuries 279 of those families died out." Could 108 out of every 389 London families trace their pedigrees back as citizens for the same period—that is, seven generations? Have not rather our large towns, where there is great scope for heterogeneous unions, to be constantly replenished by that notoriously inbred class—country villagers; and perhaps the *physique* of him of the village, where all the inhabitants have been Browns or Whites for centuries, might contrast not unfavourably with that of his town namesake.

With respect to the evil results of the "34 marriages" adduced to bear upon this point, are we to believe that all strumous and cerebro-spinal diseases—

> "Convulsions, epilepsies,
> Demoniac phrenzy, moping melancholy,
> And moon-struck madness, pining atrophy,
> Marasmus"—

are mainly to be attributed to the intermarriage of blood

relations? And, were it possible, would the "embryos and idiots" from Limbo confirm the same sad tale, and ascribe their unhappy condition to their parents' consanguinity?

Should the foregoing remarks tend in any way towards causing a careful and unprejudiced investigation of a subject than which few others can be more interesting in a scientific point of view, or important in a sanitary one, the object of the writer of them will be fully obtained.

I am, Sir, your obedient servant,

Claremont-square, Feb. 1861. S. ANDERSON SMITH, F.R.C.S.

THE INCUBATION OF HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—In your journal of Feb. 9th, your Paris correspondent reports a case of hydrophobia, at the Hôtel Dieu, in which "the period of incubation was unusually long"—rather more than three months. The majority of your readers will, of course, not require to be told that this terrible disease may be latent for a much longer period than three months. I, however, do not remember to have seen any report of a case of hydrophobia in which the period of incubation was so long as in one which I witnessed some twenty-seven or twenty-eight years ago in Somers-town.

The man had been a watchman, and when on duty a little dog snapped at his hand in passing, inflicting a slight wound on one finger, which was thought to be of no importance. *Two years* elapsed before hydrophobia developed itself. The first symptoms of restlessness occurred about thirty-six hours before death, the disease being established and fully manifest about twelve hours afterwards—i. e., twenty-four hours before death. He was a patient at the Northern Dispensary, and was attended by Mr. Skey, Dr. Marshall Hall, and Dr. Stroud, and I think Dr. Roget and Dr. Tweedie also saw him.

Apropos to the subject of unusual cases, I may mention one of ascites, occurring about the same time—that of a woman who was also a patient at the Northern Dispensary, and who was also attended by Mr. Skey. This woman was tapped sixty-three times. On the fiftieth occasion, I was permitted to be the operator—my first essay with the trocar. Of the sixty-three times, with one exception, the smallest quantity of fluid withdrawn was twenty-four quarts; the exception was twenty-one quarts. On the other sixty-two occasions, the quantity ranged between twenty-four and twenty-eight quarts.

The same patient also took the largest dose of the extract of elaterium that I ever heard of being administered—eight grains! In the latter part of her life, that was her usual dose. It was within my own knowledge that she took it, and I am convinced the drug was pure.

I am, Sir, your obedient servant,

Sunbury, Feb. 1861. JOSEPH SEATON, M.D.

THE SANITARY PROGRESS OF GLASGOW.

(FROM A CORRESPONDENT.)

ON revisiting Glasgow after some years' absence, I find that the town presents a great deal of scientific life and activity. Not less than half a dozen of the rising medical practitioners have, within the last few years, been spending some time in the hospitals of Paris and Vienna—men thoroughly devoted to the profession, and who are destined to act an important part in the history of medical science. With this new life in the sanitary body, it is impossible for Glasgow to remain behind in the general progress, or to sink into a cold routine. Thus, for instance, we are going to have a dispensary for skin diseases, under the superintendence of two able scientific gentlemen. The first step has also been taken towards the establishing of an hospital for sick children. At a meeting held on the 23rd ult. by several influential clerical and medical gentlemen, and some of our wealthy merchants, the following resolutions were unanimously agreed to:—

1. "That the excessive rate of mortality which prevails in Glasgow, as shown by the Registrar-General, loudly calls for the adoption of preventive measures."

2. "That this meeting, as the most efficacious means of diminishing this mortality, approve of the institution of an hospital for the reception and treatment of sick children similar to those already established on the continent of Europe and in this country."

A committee was then appointed for the purpose of collecting subscriptions and taking the other necessary steps for the promotion of this object. Here is apparently an important philanthropic object brought before the Glasgow citizens, who are well known to be foremost in works of benevolence. When it is considered that, in the year 1860, of 12,415 deaths registered in Glasgow, 6285, or 50·6 per cent., were those of children under five years of age, it is obvious some accommodation for sick children is required; and we should have thought that the names of those distinguished gentlemen who have taken part in the proceedings were sufficient guarantees for the success of the institution, were it not for the opposition offered by the *Glasgow Herald*, which, in a leader, tried to demolish the whole fabric, not leaving a wreck behind, followed up by two letters of the same tendency.

In fact, the scheme has not met with that reception which a superficial philanthropist would claim for it. As far as I could ascertain the mind of the profession, it may be stated that whilst it is generally admitted that the Royal Infirmary is too limited for such a town as Glasgow, and can by no means afford sufficient accommodation for infants as well as for adults (which the directors now wish to accord as far as possible), yet it is thought that the scheme would have been more worthy of those noble philanthropists—who might have secured universal sympathy and co-operation—if they had proposed to establish a "West-end General Hospital" with wards for young patients. As it is, public opinion is divided, and a complete failure is to be apprehended.

Dr. Wilson, of the Lying-in Hospital, was some time ago called to see a case in the country, many miles from Glasgow. The patient was a girl, aged thirteen, who felt inconvenienced by an abdominal tumour, which, to the astonishment of the parents, Dr. Wilson declared to be a case of advanced pregnancy. The girl has since been delivered of a healthy child, which she is nursing herself, and is doing well. Though she is of rather small size and anything but developed, yet the accoucheur reports that he never attended a more regular case of parturition.

Glasgow, Feb. 18th, 1861.

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR SPECIAL CORRESPONDENT.)

THE academical discussion on cerebral congestion and epilepsy, and their dissimilitude or identity, terminated on Tuesday last. M. Trousseau, who remained during the whole period of the *séance* in possession of the tribune, consented to reduce his original proposition to much more limited proportions, and expressed himself as satisfied with what appeared to be the common opinion of his fellow-academicians—namely, that the so-called apoplectiform cerebral congestion is for the most part nothing else than a phase of epilepsy. The discussion will not be without its fruits, and nowhere was the lesson more needed than in France, where the school of Broussais is not yet extinct, and where medical men are still very partial to venesection, more especially in the treatment of apoplectiform attacks.

A French chemist, M. Fordos, has lately attempted, and with success it would appear, to ascertain the nature of the principle which gives to the pus of certain abscesses a blue colour. This principle has been supposed by some chemists to be a modification of the green colouring-matter of the bile, or of the bluish ingredient occasionally detected in the urine; but M. Fordos maintains that it has no connexion with either. The means by which this gentleman has succeeded in isolating this principle may be interesting to some of your chemical readers, and I therefore give them as briefly as possible. The linen stained with this peculiarly tinted pus is soaked for several hours in water, to which a small quantity of solution of ammonia has been added. A liquid of a light bluish-green hue is thus obtained. Chloroform is added to the solution, and the blue principle, together with the yellowish foreign matter (producing the green tint), is extracted from the water. The chloroform is then drawn off, filtered, and evaporated. To the residue is added distilled water, which takes up the colouring principle, leaving the fatty material. A second admixture of chloroform is effected, and the ethereal solution is again drawn off, filtered, and evaporated as before. Thus are obtained the blue principle and the yellowish material. A few

drops of hydrochloric acid are added, which redden the blue principle, and the chloroform then dissolves the yellow matter, leaving untouched the blue, which is triturated with carbonate of baryta, in order to get rid of the acid, and is on evaporation of the chloroformic solution deposited in prismatic crystals of a beautiful blue colour. These crystals are soluble in water, alcohol, ether, and chloroform; and the solution is reddened by the addition of an acid, the original tint being restored on the further admixture of an alkali. This principle M. Fordos has called Pyocyanine.

The *Gazette des Hôpitaux* contains the details of a curious calculation made by M. Block, a French *savant*, relative to the average quantities of meat consumed by each individual in various countries of Europe. He has arrived at the following conclusions:—In France each person during the year consumes 40 lbs.; in Great Britain, 54 lbs.; in Bavaria, 42 lbs. 3 oz.; in Baden, 50 lbs. 8 oz.; in Spain, 25 lbs.; in Belgium, 36 lbs. 6 oz.; in Sweden, 40 lbs. 6 oz.; in Denmark, 45 lbs.; in Saxony, 36 lbs.; in Wurtemberg, 44 lbs.; in Austria, 40 lbs.; in the Two Sicilies, 20 lbs.; in Hanover, 36 lbs.; in Luxemburg, 42 lbs.; in the two Mecklenburgs, 58 lbs.; in Tuscany, 17 lbs. If these figures (adds this journal) have any bearing on the well-being and prosperity of the nations to the names of which they are appended, we shall certainly have to take our place amongst those of the second order.

Paris, Feb. 18th, 1861.

Medical News.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the Comitia Majora Extraordinaria, held on Thursday, the 14th inst., the following gentlemen, having undergone the necessary examinations, and satisfied the College of their proficiency in the Science and Practice of Medicine and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Bowes, John, Herne Bay.
May, Harry, Longton, Staffordshire.
Prior, Frederick James, Tewkesbury.
Roberts, Arthur, Montpelier-square, Brompton.
Suffield, Charles Radford, Harborne, Birmingham.
Wheeler, Henry, Clifton.
Williams, William, Penrhyn, near Holyhead.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations, and having been found qualified, received their diplomas in Dentistry, at a meeting of the Board on the 19th inst:—

Bromley, Charles Henry, Portland-terrace, Southampton; M.R.C.S. Feb. 6th, 1860.
Bullin, Frederick, Chester.
Cardell, Thomas Magor, Truro, Cornwall.
Fost, William, Preston, Lancashire.
Jameson, William Edward, Grosvenor-street.
King, John Henry Charles Erridge, Portsmouth; M.D. Edin., and M.R.C.S. Aug. 2nd, 1860.
Lyddon, George, Southsea, Hants.
Mitchell, Frederick William, Percy-place, Clapham-road.
Parker, Samuel Adams, Birmingham.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on

Thursday, Feb. 14th, 1861.

Annies, William James, Devonport.
Brecknell, William Henry, Gateshead, Durham.
Dawson, Richard Henry, Broxholme, near Lincoln.
Dickins, Frederick Victor, Manchester.
Ellis, Thomas Smith, Eastington, Repton on-Severn.
Hitchman, William, Liverpool.
Long, Robert Godolphin, Sturminster Newton, Dorset.
Richardson, Timothy, Union-terrace, Commercial-road East.
Stocker, Richard Charles Smithby.
Woodman, William Bathurst, Stonehouse, Gloucestershire.

The following gentlemen also on the same day passed their first examination:—

Lidderdale, John, London Hospital.
Oliver, Richard, Shrewsbury.
Yates, James, Pit-bank Hall, Oldham, near Manchester.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen, having passed their Examinations for the diploma, were admitted Licentiates of the College on the 9th inst.:—

Bell, Peter Gordon, Edinburgh.
Grieve, Robert, Roxburghshire.
Hannah, John Barlow, Lancashire.
Hurley, Francis Barnard, Ennis.
Lowe, John, Aberdeenshire.
O'Hara, Malachi Charles, Co. Leitrim.
Proctor, Alexander Forbes, Aberdeenshire.
Rutherford, Gideon, Sutherlandshire.

THE NEW PHYSICIAN EXTRAORDINARY TO THE QUEEN.—Dr. William Jenner, Physician to University College Hospital, and to the Hospital for Sick Children, has been appointed Physician to the Queen in the place of the late lamented Dr. Baly. It is stated that the appointment had been previously offered to Dr. Acland.

HOUSE OF COMMONS, FEB. 14TH.—On the motion of Mr. Hunt, a return was ordered of all lunatic asylums built under the provisions of the Act 16 and 17 Vict., c. 97; stating in each case whether the asylum was built by a county alone, or by the union of two or more counties, or otherwise; the total cost of the same; the number of patients provided for; the population and the rateable value of the area rated for the same; and the weekly charge made for the maintenance of patients during each of the last three years.

HUNTERIAN SOCIETY AND HUNTER'S WORKS.—The anniversary dinner of this excellent Society was held at the London Tavern on the 15th instant—Dr. Risdon Bennett, the retiring President, in the chair. Amongst the visitors were Professor Owen, Dr. Mayo (the President of the College of Physicians), and Dr. Garrod (the President of the Medical Society of London). Professor Owen announced that he had at last brought to a conclusion the great task of illustrating and collating the works of Hunter. He read the titles of numerous papers on Natural History, Surgery, and Psychology, part of which had been preserved by the faithful transcripts of Mr. Clift from the envious flames kindled by the "drunken fool" who had sought a devious path to fame by thieving from the intellectual stores of the Great Anatomist. These papers form two volumes, which will shortly be published. While they display the marvellous grasp and industry of the author, they possess, even at the present day, a great practical and scientific interest.

TESTIMONIAL.—A mark of esteem of a very gratifying character was presented by the numerous friends and admirers of Dr. Henry N. Davies, of Pontypridd, South Wales, on Monday evening last. This is not the first time Dr. Davies has received substantial expressions of public confidence and esteem, but they have been more or less of a local character. In the present instance, the recognition of the uniform courtesy, unremitting attention, and high professional skill, not forgetting sympathy for the difficulties he has contended with, emanated from residents in all the surrounding parishes, and assumed the form of a handsome gold watch and guard, value £40, and a purse containing 100 sovereigns. This unmistakable mark of appreciation was presented amidst the sincere congratulations of from 200 to 300 of his friends.

NOCTURNAL INCONTINENCE OF URINE IN CHILDREN.—It would appear, from an article published in the *Bulletin de Thérapeutique* of the present month, that M. Jacquemin, surgeon to one of the prisons of Paris, has been very successful in curing this complaint, in *several hundreds* of children, by means of a compressor urethræ. The instrument used by Nuk—a kind of elastic clamp—has been mostly employed. M. Trousseau is also a great advocate of compression in this kind of incontinence, and combines with it the internal use of belladonna. We must own to a certain amount of distrust for the clamp and the drug in the treatment of the young, especially when no reference is made to the varied causes of incontinence. The instrument and the belladonna may do mischief, and many will therefore prefer the taking up of children at stated periods, and the use of general and local tonics.

ARMY MEDICAL SCHOOL.—On Monday last, Dr. J. B. Gibson, C.B., Director-General of the Army Medical Department, accompanied by Sir J. Ranald Martin, C.B., Physician to the Hon. Council of India, and also one of the members of the Senate of the Army Medical School, Fort Pitt, Chatham, arrived at that establishment, for the purpose of making themselves practically acquainted with the progress made by the medical candidates in their studies, and superintending the competitive examination of the students now being held by Professors Longmore, M.D., Parkes, M.D., and Aitken, M.D. On their arrival at the General Hospital, they were met by Dr. Hume, the principal medical officer of the garrison; Dr. Longmore, Deputy Inspector-General; Staff-Surgeon Barron, M.D.; and proceeded, in the first instance, to make a minute inspection of the various wards of the hospital, and to examine the books and returns kept in the establishment. They then

proceeded to the Lunatic Hospital, which is set apart for the soldiers sent home insane from India and the colonies, and made a similarly careful inspection of that establishment, subsequently visiting the casemates, kitchens, and other departments, with the general good order and extreme cleanliness of all of which they expressed themselves much gratified. They then visited the Museum, and examined the improvements now in progress, the Medical Library, and Army Medical School, where they witnessed the candidates at the competitive examination for commissions as army surgeons, and again expressed themselves highly satisfied at the result of their visit. The establishment of the Army Medical School at Chatham has proved of the greatest utility. Under the superintendence of Dr. Longmore and Dr. Parkes the candidates for commissions have been daily instructed in the various duties appertaining to the members of the army medical service.

PRESERVING FRICTIONS IN ASPHYXIA.—The "Bulletin de Thérapeutique" mentions a case belonging to M. Pingault, of Poitiers, in which these frictions were successful. A young man had received in a duel a penetrating wound of the chest, and lay cold for fourteen hours, with very distant beats of the heart. During all this time, two men made vigorous frictions with hot towels which were handed to them; and, at the end of the fourteen hours, the pulsations became more frequent, and the patient finally recovered. A second case is mentioned, where version was performed in placenta prævia, and the lady was dying from hæmorrhage. Three hours' frictions with hot spirits over the præcordial region, and on the whole body with hot towels, restored her.

INCREASE OF LUNACY.—From the Report of the Select Committee on Lunatics in England and Wales, just published, it appears that the number of patients in 1844, 1858, and 1859 was as follows:—

	1844.	1858.	1859.
In private establishments	3,790	4,612	4,762
In public asylums, workhouses, &c.	16,821	30,735	31,230
Total	20,611	35,347	35,992

Thus the increase of lunatics is unhappily considerably in excess of the increase of population between the above periods. It appears therefore that out of every 600 persons in England and Wales, *one*, at least, is in such a state that, in many respects, he is incapable of managing himself and his affairs. The committee are of opinion that, excepting cases of natural idiocy or of mental imbecility, arising from age, epilepsy, fits, and other causes, 50, 60, or even 70 per cent. are capable of cure, if taken in time and carefully treated.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, FEBRUARY 16TH.—The weekly returns exhibit a continued improvement in the public health. The deaths in London were 1328 in the week that ended last Saturday, having declined to that number from 1459 in the previous week. The deaths caused by pulmonary diseases in the week, not including phthisis or whooping-cough, were 291. The most fatal in this class was bronchitis, and the deaths from it amounted to 168, and were exactly equal to the average. Bronchitis is fatal chiefly to old persons; pneumonia, which is fatal principally to the young, numbered but half as many deaths as bronchitis. Phthisis carried off 145 persons, 78 of whom died in the period of life 20-40 years. Whooping-cough, of which 88 children died, is at the present time causing more than the average mortality, a remark that also applies to croup, which was fatal in 20 cases. There were 8 deaths from syphilis.

Last week the births of 889 boys and 903 girls, in all 1792 children, were registered in London. In the ten corresponding weeks of the years 1851-60, the average number was 1747.

Births, Marriages, and Deaths.

BIRTHS.

On the 10th inst., at Caxton, Cambs., the wife of T. G. Brooke, Esq., M.R.C.S. Eng., of a daughter.

On the 10th inst., the wife of Bernard Kavanagh, M.D., of a son.

On the 14th inst., at Boulogne-sur-Mer, the wife of John Scott, M.D., of a daughter.

On the 14th inst., at Lower Baggot-street, the wife of Dr. John K. Barton, of a daughter.

MARRIAGE.

At Park-place, Edinburgh, Dr. J. Ivor Murray, F.R.C.S.E., F.R.S.E., Colonial Surgeon, Hong Kong, China, to Margaret Agnes, youngest daughter of James Alexander, Esq., of Wooler, Northumberland.

DEATHS.

On the 14th inst., at Mile-End, Walter, the son of George Davies, M.D., aged eight years.

On the 15th inst., at Prospect House, Finchingfield, Essex, Eleanor Ann, wife of E. W. Richard, Esq., M.R.C.S., of Finchingfield and Great Bardfield.

On the 13th inst., at Edinburgh, Kenneth Mackenzie Mackinnon, M.D., late Apothecary-General H.E.I.Co.'s Service, Bengal, aged 56.

MEDICAL DIARY OF THE WEEK.

MONDAY, FEB. 25	ROYAL FREE HOSPITAL.—Operations, 2 P.M. METROPOLITAN FREE HOSPITAL.—The following Operations will be performed by Mr. G. Borlase Childs at 2 P.M.:—For Fistula in Ano; for Hare-lip. MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures: Dr. B. W. Richardson, "On Certain of the Phenomena of Life."
TUESDAY, FEB. 26	GUY'S HOSPITAL.—Operations, 1½ P.M. WESTMINSTER HOSPITAL.—Operations, 2 P.M. ROYAL INSTITUTION.—3 P.M. Professor Owen, "On Fishes." ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Savory, "On the Physiology of Food." ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—8½ P.M. Dr. Kirby, "On Premature Labour induced on a Dwarf with Distorted Pelvis."—Dr. Buller, of Southampton, "On Pulsating Bronchocele."
WEDNESDAY, FEB. 27	MIDDLESEX HOSPITAL.—Operations, 1 P.M. ST. MARY'S HOSPITAL.—Operations, 1 P.M. UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M. UNIVERSITY COLLEGE, LONDON.—3 P.M. Annual General Meeting. ROYAL COLLEGE OF PHYSICIANS.—4 P.M. Croonian Lectures: Dr. Guy, "On Tabular Analysis applied to the Discovery of Truth in Medicine and the Allied Sciences." HUNTERIAN SOCIETY.—7½ P.M. Council Meeting.—8 P.M. Mr. Solly, "On the Use and Abuse of the Operation for the Excision of Joints."
THURSDAY, FEB. 28 ...	ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1 P.M. LONDON HOSPITAL.—Operations, 1½ P.M. GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M. ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Electricity." ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Savory, "On the Physiology of Food."
FRIDAY, MARCH 1	WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. ROYAL COLLEGE OF PHYSICIANS.—4 P.M. Croonian Lectures: Dr. Guy, "On Tabular Analysis applied to the Discovery of Truth in Medicine and the Allied Sciences." ROYAL INSTITUTION.—8 P.M. Prof. H. E. Roscoe, "On Bunsen and Kirchhoff's Spectrum Observations." ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—8 P.M. Annual Meeting, and Address of the President. WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.—8 P.M. Practical Evening for the Narration of Cases and the Exhibition of Specimens.
SATURDAY, MARCH 2...	ST. THOMAS'S HOSPITAL.—Operations, 1 P.M. ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M. KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M. CHARING-CROSS HOSPITAL.—Operations, 2 P.M. ROYAL INSTITUTION.—3 P.M. Dr. E. Frankland, "On Inorganic Chemistry." ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Savory, "On the Physiology of Food." GOVERNMENT SCHOOL OF MINES, Jermyn-street.—7 P.M. Prof. Huxley, "On the First Principles of Physiology."

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	13	0
For every additional line.....	0	0	6	For a page	5	0	0

Advertisements which are intended to appear in THE LANCET of any particular week, should be delivered at the Office not later than on Wednesday in that week: those from the country must be accompanied by a remittance.

To Correspondents.

Mr. G. G. Rayner.—A preliminary examination is required, as laid down in the regulations—which may be obtained on application at the College of Physicians—excepting in the cases of those students who have elsewhere passed a preliminary examination satisfactory to the Examiners. That passed at the Hall is accepted for the present. The course of professional study required by the College is in some particulars longer. The Examiners have power to prevent the bye-laws acting retrospectively on students.

H., (a Student.)—A "childish relation."

Holmrook.—The most convenient preparation is made by infusing half an ounce of the powder for ten minutes in three ounces of boiling water. This may be kept for any time by the addition of a proper quantity of spirit.

Dr. Lockhart Robertson.—The notice had reference to a collection confined simply to the progress of development.

Dum Spiro, Spero.—The case should be submitted to medical treatment.

AGUE IN INFANTS.

To the Editor of THE LANCET.

SIR,—In your impression of the 2nd instant, I saw a letter from Mr. Shirley E. Woolmer, relative to a case of "Ague in an Infant," which he styles *unique*.

I regret to say his conclusion is erroneous; for the testimony both of a great number of able and reliable authors and of daily experience goes to prove that such cases are of frequent occurrence. In fact, Underwood, Gardien, Boudin, Brunslow, Petzold, Bouchut, Semanas, Ebrard de Bourg, Valleix, Schmitzer, Guiet, Herpin de Brehemont, and many others, have treated most ably of this subject, and clearly shown the frequency and congenital transmissibility, as well as by lactation. I may as well add that *I also* have met with and successfully treated two such cases. Hence it must not at all appear "very singular" to Mr. Woolmer "that both mother and child should suffer from the same malady."

As regards the treatment, nothing can be stated, *à priori*, beyond that the preparations of cinchona are highly superior to any other drug; and I am happy to state I have obtained excellent results by simultaneously employing both the sulphate of quinine and the quinine (brute). The former may be administered in syrup, coffee, enema, and in the form of ointment—sulphate of quinine, one drachm; lard, ten drachms,—to be rubbed twice or more daily in the arm-pits, splenic and inguinal regions. This is M. Bouchut's method, and is both costly and uncertain. However, the latter preparation (quinine brute) seems the best and most adapted for infants, being less bitter, and of comparatively easy administration. Having also a resinous consistency, it is easily manipulated, cut in small particles, and exhibited in beef-tea. For this simple but useful innovation we are indebted to M. Trousseau.

Finally, having to deal with a very serious case, when in the shortest possible period it becomes necessary that the little patient should absorb a great amount of febrifuge, the quinine (brute) may be given internally, and the sulphate of quinine in enema and frictions.

I am, Sir, your obedient servant,
PHILIP E. DASTON, M.D.

Arlington-street, Mornington-crescent, Feb. 1861.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, Mr. Woolmer, I beg to state that I lately had a somewhat similar case of "tertian," not "quotidian," ague, where the usual treatment with quinine, after having relieved the congestive condition, was quite successful.

The child when born (October 22nd, 1860) appeared to be a very fine healthy male; but on the following day symptoms of convulsions came on; the lips, face, and extremities were livid, cold, and congested; this lasted about an hour. I ordered the patient a warm bath, and gave two grains of calomel, to be repeated in four hours if the bowels were not relieved. The calomel acted, and produced a dark offensive motion. The next day the child appeared comparatively well; but on the following day, at about the same time, the same symptoms returned. Another calomel powder was given with marked benefit. The next six days I gave mercury with chalk, powder of acacia, of each half a grain, in powder, night and morning, the same symptoms continuing every other day, although not so severe. On the tenth day—that is, the fifth paroxysm—a decided rigor came on, followed by the hot and sweating stages, the whole occupying about three hours. I saw my little patient during the latter stage, and then prescribed one spoonful of the following mixture every four hours:—Disulphate of quinine, four grains; dilute sulphuric acid, four drops; syrup of red poppies, two drachms; tincture of opium, two drops; to one ounce and a half of water. This mixture, with an occasional grey powder to regulate the bowels, completed the cure in a fortnight.

Both parents had tertian ague, and were cured of it a month previous to the mother's confinement. Their cases succumbed to a combination of quina and arsenical solution, but not to quinine alone. They are agricultural labourers, living in the hamlet of Westwick in this county, a neighbourhood where ague is often prevalent.

Whether the disease was communicated to the child in utero, is a problem I leave to abler hands. My impression at the time was that it was so. The child had nothing but breast-milk from birth, the mother having a good supply. He certainly was exposed to the same atmospheric influences as the parents.

I am, Sir, your obedient servant,
Cottenham, Cambridgeshire, Feb. 1861. JOHN BRIDGER, M.R.C.S.E.

Scrutator.—The examination is conducted *viva voce* only, unless the Examiners should consider it necessary to extend the examination, in which case it is conducted in writing on the following day. The examining of patients is not required of candidates for the licence.

Mr. Harry Lobb.—The paper, having been already published in another medical journal, cannot be inserted in THE LANCET.

Chemicus.—It is not enumerated in the list furnished by the College.

THE QUESTION OF TITLES.

To the Editor of THE LANCET.

SIR,—The question—one of no small interest to the profession—as to what title may be legally given to their Licentiates by the respective Colleges of Physicians has been answered hitherto in different ways at each one of our capitals.

The bolder course—that of assuming in the hope of retaining—has been adopted by the King and Queen's College of Physicians in Ireland, and, impulsive in action as hasty in judgment, they have declared their Licentiates to be *ipso facto* Doctors of Physic.

This latter title was hitherto supposed the exclusive privilege of our Universities; and it would seem from the letter of "Delta," published in your journal of the 2nd inst., that the Dublin College have as their authority the "thought" of the Attorney-General for Ireland. Other equally eminent lawyers are of an opposite opinion; and since the question will be brought before the Court of Queen's Bench, there seems good hope that some final decision will ere long be arrived at. As an *alumnus* of one of our Universities, I need not say which turn I hope the matter will take.

Your obedient servant,
February, 1861. QUIVIS.

Scalpel.—The tables mentioned have not appeared in this journal. We do not file the morning paper named.

WE are unavoidably compelled to postpone the publication of *Mr. Jones's* paper until next week.

J. F.—He cannot defer the period for his preliminary examination, except upon some special grounds.

Medicus.—1. The names were published in THE LANCET.—2. He receives a certificate.

ARSENICAL SOAP.

To the Editor of THE LANCET.

SIR,—Perhaps one of your numerous correspondents would kindly give me, through the medium of THE LANCET, the formula for the preparation of arsenical soap, or where it can be purchased.

Yours obediently,
Narberth, February, 1861. M. G. EVANS, M.D.

Studio should lay the facts, if they can be substantiated, before the Medical Registration Association.

A. & Z., (Sheffield.)—It would be better to give the information to patients by private circular.

An Anxious Father should consult some respectable practitioner, who would be able to supply him with a remedy.

SALIVATION DURING PREGNANCY.

To the Editor of THE LANCET.

SIR,—If your correspondent who requires information as to the means of arresting salivation during pregnancy will try quinine in two-grain doses every six hours, he will in all probability effect a cure. The above remedy has been found successful, and is reported.

Your obedient servant,
February, 1861. R. T. LODGE, M.D.

A Thirty Years' Subscriber.—Medical practitioners are not responsible for the "folly" of their puffing friends.

B. B., (Glasgow.)—Yes, if they be forwarded to us.

S. G.—There is no positive remedy. Drilling is the most likely means of cure.

OBSTINATE AGUE.

To the Editor of THE LANCET.

SIR,—I shall feel obliged if any of your numerous readers can inform me of a remedy that is likely to be efficacious in the treatment of an obstinate case of quotidian intermittent fever, attended with enlargement of the spleen. Quinine in large and small doses has been given, and Fowler's solution of arsenic and the various preparations of iron tried with benefit. Counter-irritation has also been used over the region of the spleen. Hoping to gain some information,

I am, Sir, yours obediently,
Dublin, February, 1861. AN INQUIRER.

ERRATUM.—In the abstract of a case of "Spontaneous Separation of the Placenta," reported in THE LANCET of the 15th December last, p. 587, the name of the author was misprinted "Hopkins." It should have been "Hobkirk."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Ritchie; Dr. Edward Smith; Mr. Holmes Coote; Mr. Henry George; Mr. R. H. Wilson; Mr. J. Wilmhurst; Dr. R. S. Sisson; Mr. M. H. Irving; Dr. A. H. Paterson; Mr. H. Power; Dr. Garrett, Hastings; Mr. Nunneley; Dr. Lodge; Dr. G. Evans; Mr. G. Davies; Mr. Harry Lobb; Mr. Henry Power; Mr. W. Gray; Mr. T. W. Locke, Redcar; Dr. Devenish; Dr. Jago, Truro; Mr. R. Pearson, Sheffield, (with enclosure;) Mr. T. Morris, (with enclosure;) Dr. Anderson, Glasgow, (with enclosure;) Mr. H. Horsfall, Wakefield, (with enclosure;) Mr. F. Dowling, Bristol, (with enclosure;) Mr. Bell, Uppingham, (with enclosure;) Mr. J. W. Pridham, (with enclosure;) Mr. Andrews, Long Eaton, (with enclosure;) Mr. R. Woods, Pontefract; Mr. W. Nowell, Halifax, (with enclosure;) Mr. J. Langston, Strood; Mr. Reynolds; Dr. Wolfe; Alpha; L.R.C.P. Lond.; A Dentist; Studio; Holmrook; An Anxious Father; Quivis; An Inquirer; &c. &c.